Ethnic Fragmentation and Social Expenditure

Notions of social solidarity and membership and the challenges of ethnic diversity

Ulises Carrillo Cabrera
Merton College

Thesis submitted in partial fulfilment of the requirements for the degree of MLitt in Social Policy in the Social Sciences Division at the University of Oxford

Trinity Term 2010

Approximately 35,000 words

To Ana, my prana.

Acknowledgments

First and foremost, I want to thank Teresa Smith. This thesis and the successful completion of my studies are in the greater part a reflection of her support and guidance. Teresa, you are the best supervisor anyone at Oxford University can hope for.

Also, I thank Merton College for providing a wonderful study environment, and giving me the opportunity to experience the true Oxford's spirit of commitment to excellence. Being a Mertonian is an honor that I shall treasure for the rest of my life.

I would like to acknowledge the Mexican Council for Science and Technology (CONACYT) for giving me the scholarship that supported my graduated studies.

Last, but not least, I thank Tabacon Brun Linus for the extended and enticing conversations regarding the urgent need for a new social policy design in my home country, Mexico. He and Ana, my partner for life, gave me the key motivation to rightfully fulfill my duties as a graduate student.

Abstract

Does ethnic fragmentation negatively affect social expenditure? In this thesis, I examine why this research question, only partially tackled by the political economy literature, is also central for the social policy field. Using a sample of 156 countries, and controlling for variables that social policy theory postulate as essential to explain welfare provision, I offer evidence that higher levels of ethnic fragmentation lead to lower levels of social expenditure. On that basis, I present a theoretical framework that explores how this relationship can be explained. Ethnic fragmentation is presented as a variable that complicates the development of social solidarity and the notions of shared identity, and shifts social mobilisation from issues of economic redistribution towards ethno-cultural recognition. I also conduct a second series of statistical analysis that show that there is evidence to support the previous propositions. Additionally, using a different confirmatory test, I explore the correspondence between the levels of de-commodification that 18 welfare states provide, and the principles of blood descent (*jus sanguini*s) or civic ties (*jus solis*) that their respective national laws favour. The findings show that the welfare regimes with the most de-commodifying provision tend to favour ethno-cultural principles. Finally, I emphasize that the probable effects of ethnic fragmentation in an increasingly multicultural world, with its tendencies to put social integration and differentiation issues back on the agenda, are not a prediction of erosion of the welfare state, but an important element to take into account in the creation and robustness of shared identities and notions of common belonging when designing social policy.

Key words: ethnic fragmentation, social expenditure, solidarity, citizenship, multiculturalism, welfare state.

CONTENTS

Preface **1**

The Basic Narrative Leading this Thesis 2

CHAPTER ONE.- **Theoretical Framing** **7**

Section I.- From Political Economy to Social Policy **7**
Section II.- Linking Social Policy and Ethnic Fragmentation: The Logic of an Underlying Mechanism **13**
Solidarity 14
Citizenship and Nationality 17
Social Mobilization 22
Section III.- The Path to Follow **25**

CHAPTER TWO.- Statistical Analysis **27**

Section I.- Ethnic Fragmentation and Social Expenditure: Documenting a General Link **28**
A stable or fixed model of variables 28
Independent variables 29
The first set of regressions 34
The OECD test 42
Summary 44
Section II.- Ethnic Fragmentation and the Foundation Variables of Social Policy **45**
A first test: ethnic fragmentation and solidarity 46
A second test: ethnic fragmentation and social empathy and mobilisation 50
a) Testing for a Diverting effect 50
b) Testing for a Contrasting effect 54
Summary 57

CHAPTER THREE.-Ethnic Fragmentation and the Allocation of Citizenship **59**

Section I.- Ways of Allocating Citizenship **62**

The Right of Bloodline and the Right of Birth *62*
Principles of Citizenship and Ethnic Fragmentation: Basic Propositions *64*
Proposition *I*. *65*
Proposition *II*. *65*

Section II.- A Cross-Country Analysis of Principles to Confer Citizenship**..... 66**
Data Gathering.....*66*
Discussion of Findings.....*68*
Summary.....*73*

CHAPTER FOUR.- Conclusions 75

Is there a Phenomenon Worth Studying? *76*
How does It happen?.....*78*
Where else to look?.....*82*
Ethnic Fragmentation and the Welfare State in a Multicultural World.....*84*

References 87

Methodological Appendixes 94

LIST OF TABLES

Table 2.1 Ethnic Fragmentation and Government and Social Expenditure 38

Table 2.2. Ethnic Fragmentation and Government and Social Expenditure, Robust OLS 40

Table 2.3. Ethnic Fragmentation and Government and Social Expenditure Seemingly Unrelated Regressions (SUR) 41

Table 2.4. Ethnic Fragmentation and Government and Social Expenditure within OECD countries 43

Table 2.5. Ethnic Fragmentation and Total Government Revenue 47

Table 2.6 Ethnic Fragmentation and Total Government Revenue within OECD countries 49

Table 2.7 Ethnic Fragmentation and a Diverting Effect..... 52

Table 2.8 Ethnic Fragmentation and Collective Bargaining Coverage and Labour Union Membership 55

Table 2.9 Ethnic Fragmentation and Collective Bargaining Coverage and Labour Union Membership, Robust OLS 56

Table 3.1 Citizenship at Birth, Welfare Regimes and Ethnic Fragmentation..... 68

LIST OF APPENDIXES

Appendix 1. The Ethnic Fragmentation Index i

Appendix 2. Variable Definitions and Technical Notes ii

Appendix 3. Regression Logs and Scatter Plots of Residuals: Whole Sample vii

Appendix 4. Regression Logs and Scatter Plots of Residuals: OECD xiii

Appendix 5. Regression Logs and Scatter Plots of Residuals: Social Attitudes xix

Appendix 6. Regression Logs and Scatter Plots of Residuals: Social Mobilization .. xxv

Appendix 7. Selected Nationality Laws xxix

Preface

According to Esping-Andersen (1990:1-34), social policy theory has guided its study of the welfare state by two major questions: the impact of the welfare state in the transformation of capitalist society, and the causal elements behind the welfare state's development and its defining characteristics. This thesis is framed within the scope of the second question.

In order to explain the development of the welfare state and the rise of its main characteristics, social policy literature has analyzed different factors such as social class mobilization, economic development, legal heritage, and political coalitions and ideologies (Wilensky, 1975; Skocpol & Amenta, 1986; Korpi, 1983; Pierson 1991; Esping-Andersen, 1990 and 2002). This thesis aims to develop a basic theoretical framework and to provide empirical evidence able to support the inclusion of ethnic fragmentation as an additional factor that has a systematic and significant role in explaining the level of social expenditure, and as an element that affects any given social policy or welfare state.

Before presenting the research question, the hypothesis and the theoretical framework, it is necessary to provide a comprehensive view of the social policy landscape that supports them, as well as an overview of the issues that this thesis intends to explore. The following pages present a very concise preface that explains the basic questions and reflections that motivated this work, before proceeding to the core chapters that guide this thesis and its findings.

The basic narrative leading this thesis

Walking in Stockholm, the chances that the first two individuals you meet belong to different ethnic backgrounds are just 6 out of 100.[1] If you decide to go for a walk in Copenhagen your chances are slightly better, 8 out of 100. However, in exchange for these reduced chances of meeting people from different ethnic and cultural groups, you will be touring the capital cities of two of the countries with the highest social spending in the world. Both Sweden and Denmark devote more that 30% of their GDP to public social expenditure.[2]

In Vienna, your chances of finding individuals belonging to different ethnic groups surpass the 10% mark, but in Austria the resources financing welfare are just 27% of the total wealth generated by the country every year. In a more heterogeneous United Kingdom, the possibilities that two randomly selected persons belong to different ethnic groups reach 12%. Again, such increase in diversity is accompanied by a decrease in social expenditure to just 25.3% of the GDP.

On the other side of the Atlantic, the negative relationship between ethnic diversity and social expenditure seems to be strengthened. In the United States the probability that your two randomly selected individuals can be characterised as members of different ethnic groups climbs to 49.6%, and the social spending plummets to 14.9% of the GDP. In an even more ethnically diverse Mexico, 54.2%, the social spending falls to the second lowest level of the OECD's members, just 8.0% of the GDP.

The mechanical repetition of this argument is especially effective for sub-Saharan countries. The thirteen most ethnically fragmented countries in the world are in this region, and among these nations we find six of the ten countries with the

[1] The probability is calculated using the Herfindahl Index of group shares; see Methodological Appendix 1.

[2] Organization for Economic Cooperation and Development (2005) OECD Factbook. Economic, Environmental and Social Statistics, Paris, OECD Publishing (available online at http://www.sourceoecd.org/factbook).

lowest public expenditure in education as a percentage of the GDP, and five of the lowest ten national levels of public expenditure in health services.[3] Nigeria, with the ninth most ethnically fragmented society in the world has the ninth lowest level of expenditure in public education as percentage of GDP, and the second lowest in health. Uganda, the most ethnically fractionalized country in the globe, does not stand far behind.[4]

In fact, different cross-country studies from the political economy literature have reported evidence suggesting that ethnic fragmentation is negatively correlated with the quality of government, the extent and quality of public services, and the resources allocated to public works (Easterly & Levine, 1997; Annet, 2001; Luttmer, 2001; Alesina & Easterly 2002; Alesina and Glaeser, 2004). However, by expanding this exercise to more countries and asking specifically about social expenditure, eventually the South Korean and Canadian cases emerge.

In one extreme of the spectrum we find South Korea, the most ethnically homogenous country in the world. If you organize the whole population of this nation in pairs of individuals, the chances of you picking a pair where individuals belong to different ethnic groups is just two out of one thousand (0.002). Nevertheless, and in open contrast with what takes place in other highly homogenous countries like Norway, Sweden, Denmark or The Netherlands, public social expenditure in Korea is merely 4.7% of the GDP, the lowest amongst OECD economies.

In the other farthest extremity we have Canada, a country with levels of ethnic heterogeneity comparable only with Sudan and Ethiopia in the Sub-Saharan region,[5] but that intriguingly reports national levels of public social expenditure among the world's top 20.[6] In light of this evidence, and in order to maintain the

[3] *World Bank Development Indicators*, 2004 Edition. See appendix in Carrillo (2003).
[4] See Appendix in Carrillo (2003).
[5] The value of the Index of ethnic fragmentation for Canada is 71.24% (0.7142). The same measure is 0.7147 for Sudan and 0.7235 for Ethiopia. See Alesina, 2002, Methodological Appendix 1.
[6] Public social expenditure in Canada accounts for 17.84% of the GDP, this percentage slightly exceeds the value reported for more ethnically homogenous countries like Australia (17.62%) or Ireland

relevance of ethnic and religious fragmentation for the study of the welfare state, it is necessary to search for other factors that can explain cases such as Canada's or South Korea's.

An obvious and first factor that could affect the significance of ethnic or religious heterogeneity in determining social spending is the institutional arrangements of the polity (Kymlicka, 2002; Alesina 2004). Among OECD's members, the five countries with the lowest levels of social public expenditure are countries that favour single-member majoritarian electoral systems.[7] On the contrary, four out of five countries with the highest levels of social expenditure have proportional representation electoral systems,[8] and all constitute parliamentary or semi-parliamentary democracies. Thus, the institutional landscape could play an important role for this research.

A second explanatory factor could be what several authors have called the "ideology of redistribution" (Kymlicka & Norman, 2002; Esping Andersen, 2002), and how this can be affected by ethnic or religious heterogeneity. In the homogenous South Korea, 36% of respondents to the *World Values Survey* consider that people suffering economic need are in such a circumstance due to laziness or lack of willpower. In contrast, in Sweden -another highly homogenous country- just 16% of respondents agree with this statement.[9] It could be that different perceptions about why people face economic difficulties may lead to different collective decisions about redistributive policies, and in due time that factor may affect the importance of ethnic heterogeneity as a determinant of social expenditure.

(17.16%). See Organization for Economic Cooperation and Development (2005) OECD Factbook. Economic, Environmental and Social Statistics, Paris, OECD Publishing (available online at http://www.sourceoecd.org/factbook).

[7] Korea, Turkey, Japan, the United States and Mexico are included here. Mexico has an electoral system that combines majoritarian districts with PR party lists; however the majoritarian element comprises 60% of the legislative seats. See *CIA World Fact book*, 2004 Edition.

[8] Sweden, Denmark, Finland and Switzerland are in this category. The exception is France. See *CIA World Fact book*, 2004 Edition.

[9] See *World Value Surveys* 1999-2002, question E190-2, in Inglehart R., et al. Ed. (2004) *Human Beliefs and Values: A cross-cultural sourcebook based on the 1999-2002 values survey*, New York, Siglo XXI.

In line with this argument, the traditionally ethnically diverse and welfare sceptic United States, 40% of respondents believe that laziness is the main cause of poverty. Additionally, in the American case there is evidence of a racially oriented variable predicting the levels of support for social spending. Whites who think that blacks are lazy are less likely to support more spending on welfare (Alesina & Glaeser, 2004:150-153).

Thus, in countries with comparable levels of homogeneity (South Korea and Sweden), attitudes towards redistribution may dilute the ethnic effect. Nevertheless, if attitudes on social redistribution are aligned along ethnic cleavages, it seems -as occurs in the United States- that ethnic fragmentation could be a central variable for the study of the welfare state.

Another interesting issue related to ethnic fragmentation within the ideology of redistribution, may be reflected in individual attitudes toward redistributive policies when people are asked about the allocations of job opportunities. In ethnically diverse and welfare generous Canada, 49% of respondents believe that when jobs are scarce employers should give priority to Canadians. In homogeneous and welfare sceptic South Korea, the same response reaches a staggering 84%.[10] Finally, looking for indicators of tolerance and social integration beyond racial cleavages, in Canada just 5% of the respondents would not like to have as neighbours people from different race, in the United States 9%, and in South Korea 58%.[11]

According to MORI's findings from a survey conducted in the United Kingdom in 2003,[12] 39% of respondents said they would rather live in an area where people are from the same ethnic background as themselves. To this evidence we should add that 85% of people interviewed want to live among others who share their

[10] See *World Value Surveys* 1999-2002, question C002, in Inglehart R., at al. Ed. (2004) *Human Beliefs and Values: A cross-cultural sourcebook based on the 1999-2002 values survey*, New York, Siglo XXI.
[11] See *World Value Surveys* 1999-2002, question A125, in Inglehart R., et al. Ed. (2004) *Human Beliefs and Values: A cross-cultural sourcebook based on the 1999-2002 values survey*, New York, Siglo XXI.
[12] http://www.mori.com/polls/2003/community.shtml

own values. Even more, MORI's study suggests that 45% of respondents believe that newcomers who do not share the core values of the community will likely take advantage of social services. Thus, people's concerns about ethnic heterogeneity can be understood as part of a more significant concern about free riders (Duffy, 2004).

After a very tentative approach to the subject of this thesis, it is clear that a meaningful examination of the repercussions of ethnic fragmentation for social policy will require an assessment of how the principles of solidarity and reciprocity that sustain the welfare effort could conflict with rising levels of ethnic and religious diversity. This is also related to contemporary sociology and the rise of themes of differentiation and integration, the re-emergence of nationalism and ethnicity, and the new centrality of a question first advanced by Durkheim: how is the functioning of the society and the welfare state possible in an increasingly differentiated and multicultural social order? (Gough & Olofsson, 1999:1-9) Then, based on these few reflexions, it is possible to advance a proposition in favour of a probable, significant and negative relationship between ethnic heterogeneity and social expenditure.

It is even feasible to elaborate on a preliminary phrasing of the hypothesis guiding this thesis as: the greater the diversity of groups with independent ethnical and cultural traditions within a polity, the less the extent of social unity and redistribution within a society. Thus, ethnic fragmentation could increase the tensions between the concepts of liberty (diversity), on the one hand, and solidarity (membership and common identity) on the other, that sustain modern social policy and welfare arrangements within contemporary society. That is the basic landscape for the research puzzle that will guide the chapters to come.

Chapter One
Theoretical Framing

Section I.
From political economy to social policy

The essential aim of this thesis is to test whether greater diversity of ethnical groups with independent moral and ethical traditions within a polity, reduces the extent of social redistribution within that society. Such a proposition implicitly suggests that the greater the level of ethnic fragmentation, the less social solidarity and social mobilization there will be to secure the provision of welfare.

This proposition rests on the paramount assumption that a pre-existing community or entity of mutual concern and respect, where individuals share principles and express willingness to cooperate with their fellow members, is the precondition to develop the basic redistributive measures of social policy and the welfare state (Walzer, 1983; Dagger, 1997; Miller, 1995 and Lewis, 2001). Also I implicitly assume that once a pre-existing community is in place, the welfare state and its policies are instruments of social integration and reproduction of the social capital shared by the polity (Gough, 1999). Any variable that may affect these assumptions should be relevant to the analysis of the elements that shape modern social policy.

Therefore, through the assessment and adaptation of social policy literature, I will try to develop a coherent theoretical method that should explain how ethnic fragmentation is linked, to social policy decisions, in general, and to decisions of social expenditure, in particular. To achieve this goal, it will be necessary to transfer the main topic of this thesis from the field of political economy into the realm of social policy theory and literature.

As I will address in section II of this chapter, in order to explain different levels of social spending, and the way welfare benefits are structured and delivered, literature on the different welfare regimes has taken into account economic, social and political factors. However, ethnic fragmentation has remained basically excluded from the list of variables used by the dominant explanatory models of the welfare state, and the social policy associated with them.

The initial suggestion that ethnic fragmentation[13] has a significant impact on government performance, policymaking, and ultimately on the intricate fabric of society and social redistribution is in fact a contribution of the political economy literature. This field of research has reported preliminary evidence on ethnic fragmentation as a variable strongly and negatively correlated with the amount of public goods, general economic performance, and democratic stability in different countries.

Easterly & Levine (1997) found, in a cross-country study, that high ethnic diversity is closely associated with low schooling attendance, underdeveloped financial systems, distorted foreign exchange markets, and insufficient infrastructure for Sub-Saharan Africa.

Alesina (1999a) conducted research on local government expenditure in the United States that suggests that certain productive goods provided by local counties (education, roads, sewers, etc.) are inversely related to ethnic fragmentation. Luttmer (2001) provides evidence to support that in the United States relatively racially heterogeneous states provide lower welfare benefits in comparison with more ethnically homogeneous ones. Collier (2001) found that public expenditures are lower and less efficiently allocated in ethnically fragmented societies.

[13] The measure of ethnic fragmentation is given by the probability that two randomly drawn individuals from the population belong to two different ethnic groups. See Appendix 1.

Alesina & Easterly (2002) report a positive correlation between ethnic and religious fragmentation and bureaucratic delays, corruption, infant mortality, illiteracy and inadequate infrastructure, and conclude "that more fragmentation leads to a lower quality of government". Aghion (2002) suggests that ethnic fragmentation is inversely correlated with democracy, political freedom and political stability.

Closer to social policy literature, Putman (2004) and Skocpol (2002) report a link between high ethnic and religious fragmentation and low social capital, as well as a link between ethnic fragmentation and low community entity.

Finally, in the precise junction between political economy and social policy, Alesina and Glaeser (2004) argue that differences in racial diversity constitute a significant explanation of why the United States did not develop a welfare state similar to the European model.

These results lead into a road worthy of further research, and give way to the development or adaptation of the theoretical framework described in this chapter, and the empirical findings presented in chapter II.

Until now, such a framework has been restricted to a preliminary rational-choice approach. The main assumption has been that diverse ethnic groups have different preferences over which type of public goods to produce with public resources, and that each ethnic group's utility level for a given public good is reduced if other groups also benefit from it (Alesina, et al. 1999).

Alesina, by far the most influential author on this topic, argues that citizens choose lower provisions of public goods when a significant amount of tax revenue collected from one ethnic group is used to provide public goods to other ethnic groups. More controversial contributions suggest that given that individuals prefer to redistribute within their own racial, ethnic or religious group, they would choose lower levels of redistribution when members of their own group comprise a smaller share of beneficiaries (Luttmer, 2001).

It is important to notice that most political economy studies focus primarily on the effects of ethnic fragmentation on economic growth and quality of government, but do not specifically explore the implications of ethnic fragmentation for the welfare state. The implications of all political economy findings for social expenditure and the welfare state have resulted only as a by-product of such literature.

In this order of ideas, we find that even if some evidence of the connection between ethnic fragmentation and social expenditure has been partially established, political economy literature has reached its limits. The consequence: political economy has been unable to ascertain a framework that can explain this connection.

It is precisely at this point where social policy theory plays an important role, considering that it comprises the elements required to explore for an underlying mechanism that might explain the proposed link between ethnic fragmentation and social expenditure.

In light of this preliminary and basic evidence, the social policy literature has remained mostly silent. The only major piece of work that specifically attempted to tackle the challenges that ethnic fragmentation may pose to the welfare state came from the multiculturalists' approach, specifically from Kymlicka & Banting (2006a and 2006b).

These authors conducted a comparative study in order to test whether multicultural policies erode the welfare state. Unfortunately, their work missed the evidence previously established by the political economy field about ethnic fragmentation as a factor that explains different levels of national commitment to social and redistributive policies.

Kymlicka and Banting mainly tested whether welfare states with multicultural elements within their institutional design perform better than welfare states without such features, and presented such analysis as an answer to the ethnic fragmentation challenge. Their study suggests that there is no inherent tendency for either immigrant ethnic diversity or multiculturalism policies to erode the welfare state.

However, the key topic about ethnic fragmentation and its link (if any) to social policy is not whether multicultural designs of the welfare state perform better, but how ethnic fragmentation affects the key factors that determine levels of welfare provision and social expenditure. The question is about the negative effects that ethnic fragmentation could have on the support and advance of welfare policies and public expenditure on social policies, even when those policies perform adequately.

This subtle difference between the key question guiding this thesis and the work of Kymlicka and Banting should not pass unnoticed. As will be addressed with further detail in the following section of this chapter, the main focus of this study is about how ethnic fragmentation may affect the deep and long term commitment to social expenditure and social policy of different countries, not about the performance of social policy.

Going back to the point about the limits of the political economy approach, according to this field, the study of ethnic fragmentation -as a challenge to the availability of public resources for public goods and services- requires explanations and theoretical frameworks beyond rational choice and political economy in order to be properly assessed (Luttmer, 2001; Slemrod, 2001 and Dreyer, 2003). It is precisely on the borderline between the fields of political economy and social policy where issues of common identity, feelings of belonging, group loyalty, and individual attitudes towards redistribution could emerge to play a central role.

For example, Slemrod suggests that in order to have a strong tax-revenue, governments must rely on a certain level of voluntary tax compliance beyond the enforcement of law, and -in that scenario- individual attitudes towards social policy and redistribution do matter.

Similarly, Dreyer (2003) provides another good illustration that favours the transition of ethnic fragmentation from an issue of political economy into a worthy question for social policy. In his study, he reports evidence that suggests that societies with high levels of ethnic fragmentation have fewer resources available for public services and social policies, due to taxpayers' concerns that public goods benefit people with whom they do not associate. This lack of empathy between the individual that pays for social policy, and the actual recipient of social expenditure, could lead to lower voluntary tax compliance, a bigger informal sector of the economy, and a decline in the robustness of public and social policies.

Finally, Luttmer (2001:500) presents a proposition about societies "having a taste for redistribution that partially obeys group loyalty".

On this borderline, I argue that the empirical link between ethnic fragmentation and social expenditure merely documented by the political economy literature can become a relevant object of study to explain social expenditure, social redistribution, and social policy.

According to the academic literature and propositions presented in this section, it is possible to suggest an original and more comprehensive study of the effects of ethnic fragmentation on social expenditure. In this analysis, first I will attempt to demonstrate that a phenomenon worthy of study is really occurring.

This can be achieved by finding comparative empirical evidence of the correlation between ethnic fragmentation and social expenditure. In addition, I will propose the use of cross-country data on social expenditure and social development as the central issue of a social policy thesis, and not as a simple by-product of a political economy analysis. That will be the task for Chapter II.

Second, in order to avoid a mere documentation of a new empirical phenomenon, an underlying mechanism will be necessary to explain how ethnic fragmentation could shape social expenditure and welfare provision. All this must be accomplished by using strictly the theoretical framework of social policy and the welfare estate.

As a result, I propose to develop an original theoretical arrangement able to link ethnic fragmentation with the key forces shaping social policy provision and development postulated by social policy theory. In addition, it will be essential to secure that this theoretical underlying mechanism is expressed in a way that makes feasible an empirical test. That is the true core and contribution of this work, and the crucial aim for the next section of this first chapter.

Section II.

Linking Social Policy and Ethnic Fragmentation: the logic of an underlying mechanism

In this section I will test whether greater diversity of cultural groups, with independent moral and ethical traditions within a polity, reduces the extent of social unity and redistribution within that society. In this context, I will explore the social policy literature in order to identify contributions and ideas that may constitute a robust and coherent framework. Within this broad framework I will construct the subject of this thesis.

If, from a broad sample of cross-country data, the statistical tests to be conducted in Chapter II initially show that ethnic fragmentation is indeed negatively associated with social expenditure, then it will be necessary to

explain how ethnic fragmentation is producing such effect. To answer that question in a very preliminary fashion, it can be suggested that if ethnic fragmentation dilutes the notions of solidarity and common belonging, then doubts and reservations concerning fair contributions of other members of the polity towards the maintenance of social policy, may arise among citizens.

Therefore, beyond an initial systematization of comparative data and evidence specifically related to ethnic fragmentation and social expenditure, this thesis must offer a clear underlying mechanism to empirically test if in a more diverse society, the common culture and identity that legitimates mutual obligations and contributions could be eroded; therefore, creating conflicts between social solidarity and diversity, with the implicit decline in social expenditure and the resources available for the social policy effort.

To accomplish that goal, I start from the idea that welfare and social policy provisions, and the extent or scarcity of those provisions, are determined by three major factors: social solidarity (Habermas, 1995), citizenship (Miller, 1999 and Walzer, 1987), and the conditions of class mobilization (Korpi, 1983 and Esping-Andersen, 1990). In the following pages, I will review these basic concepts and the respective social policy literature in order to propose how they could be affected by ethnic fragmentation. In this effort, I intend to aggregate all three key factors in a coherent mechanism to suggest a structured causal channel able to link ethnic fragmentation and social expenditure.

Solidarity

People's most basic motivation to contribute to social policy and the welfare state can be derived from sociological theories on solidarity. The study of social solidarity is concerned with the conditions under which people are willing to contribute to the common good; that is, the readiness of individuals to put social interests above their individual interests (Gelissen, 2000; Stjerno, 2005).

Two of the founders of modern social theory, Weber and Durkheim, perceived social solidarity as a set of relationships among individuals that enables collective action and the fulfilment of collective interest. Solidarity exists because individuals share an identity as members of a collectivity and believe that all of them share a common fate (Stjerno, 2005).

For Durkheim solidarity emerges either because individuals have a mutual sense of belonging and responsibility, or because individuals realize that they need each other to achieve their goals. Weber (ed. 1978) suggests that the strength of solidarity depends on the strength of shared identities and utilities. Solidarity and the redistribution it implies is not an altruistic impulse, it is based on a rational calculation (Hechter, 1987) and, as such, requires institutionalization to be a systematic enforcement to prevent free riding (Parsons, 1951).

Habermas (1995) suggests that the welfare state cannot be imagined without the notion of solidarity; redistribution is not possible without a capacity for *empathy* and for imaging the situation of others. However, this same framework implies that any notion of solidarity is deeply affected or transformed by issues of individual's similarities and differences, and the relationship between a 'we' and a 'they'.

Different levels of ethnic fragmentation could lead to different arrangements between the autonomy of the individual and the individual's willingness to subordinate that autonomy to the well being of the group. If any notion of solidarity faces a trade-off to accommodate individual diversity (freedom) and collective redistribution (equality), ethnic fragmentation may be a factor that goes directly into that cleavage.

Additionally, many authors postulate that freedom and well-being are only possible within a collectivity (Marshall, ed. 2000; Sandel, 1984; and Walzer, 1990). As Kymlicka suggests, "once we take account of the dependence of human freedom and well-being on society, then it is clear that we have

obligations to sustain the common good of society, and that obligations are as weighty as our rights to individual liberties" (2002: 212). In this landscape, high levels of ethnic fragmentation could complicate the adoption and definition of a shared and consensual common good essential for the development of social solidarity.

According to Kymlicka (2002: 220) the common good "rather than adjusting itself to the pattern of people's preferences, provides a standard by which those preferences are evaluated". The common good is conceived as a substantive conception of the good life that defines the community's way of living, and it cannot be overstretched to accommodate extreme diversity without becoming meaningless. This issue is central for this thesis.

First, we have a notion of individual liberty in contemporary diverse societies that postulates that individuals are not to be defined by their relationship to any particular economic, religious, ethnic or sexual context. Second, we have a contrasting notion of individual membership that requires an obligation of solidarity and contribution towards the creation and sustaining of structures of common good and redistribution (i.e. the welfare state).

Consequently, we have the following dilemma: on one side, the idea of *state neutrality* in reference to individual's preferences or group attachment (Dworkin, 2002); and on the other, the idea of a required minimal contribution and *conformity to a common good* before any claim of individuals to the resources and liberties needed to pursue their own conceptions of the good life (White, 2003). In that fragile equilibrium, ethnic fragmentation may increase the tension between the forces of liberty-diversity and the forces of membership-solidarity within contemporary societies.

In light of this debate, I will explore whether ethnic fragmentation threatens elements that in contemporary societies rule the engagement in a dispute about the implementation of redistributive policies (Ward, 1991). However, as

Kymlicka & Norman (2000:12-18) suggest, we can not just ignore that many of the discussions on the regulation of ethnic conflict and the distribution of the burden of social reproduction fall outside the boundaries of contemporary social theory.

If individuals at the most fundamental level do not embrace a egalitarian plateau of debate, and do not believe that they belong together as members of the polity, then it is possible to suggest that ethnic fragmentation will negatively affect social solidarity. In contrast with the immutable principle of common belonging, individuals will not be discussing from the principle that "I merely have some differences with you", but from the basis of "I am different from you" (Ward, 1991: 601; and Dagger, 1997: 181).

In sum, regarding the concept of solidarity, the question posed is the apparent conflict or trade-off that ethnic fragmentation may create between the logic of solidarity and membership that social policy implies (with its tendency to draw cultural and community boundaries), and the logic of diversity and individual freedom that better describes modern liberal societies (with its tendency to cross such borders) (Walzer, 1983; Miller, 1995 and Kukathas, 2003). Such a question may reveal the complicated cohabitation of equality and liberty (Lomasky, 1987; Frazer, 1999; and Kymlicka, 2002:284), and the conflicts that may arise when ethnic fragmentation is added to the valued neutral diversity of modern societies.

Citizenship and nationality

In order to further elaborate the central question of this thesis, it is necessary to rely on a theoretical framework that allows the simultaneous analysis of concepts such as liberty, individual responsibility, membership and common good. The obvious candidate is the concept of citizenship.

The concept of citizenship has been intrinsically related to social policy and the welfare state. For Marshall (ed. 1983: 249-60), the fullest expression of citizenship requires a welfare state. For Esping-Andersen, citizenship -and especially social citizenship- constitutes the core idea of social policy and the welfare state (1990:21).

From the social policy literature, the welfare state emerges as the feature that ensures that every individual member of society is received as a full member of the polity: able to participate and contribute in the common life of a good society, and able to pursue his or her individual ideals of the good life.

Every notion of citizenship is characterized by some rights and obligations we think people ought to have as members of a given polity. Any account of these rights and obligations will depend on what we take to be the shared interests of citizens. As mentioned in section one, this approach assumes that individuals perceive themselves as members of a given polity, and that they implicitly share a notion of solidarity and the good society (Dagger, 1997; and White, 2000).

Only when citizens believe that they belong together as fellow members of the polity, can they embrace the debate in the allocation of resources necessary to pursue individual and collective well-being.

A pre-existing community of mutual concern and respect, where citizens share principles and express a willingness to cooperate with their fellow citizens as equals, is the precondition to develop the basic redistributive measures that the welfare state implies (Dagger, 1997; Walzer, 1983; Miller, 1995). The existence of a *common ground* among *individual* citizens is the paramount foundation that supports the social policy; it is the precondition to achieve political aims such as social justice (Barry, 2001 and White, 2003).

This approach implies that the moral and redistributive coherence of a political society ultimately does require higher levels of social conformity on a unified definition about the good society. To phrase these propositions plainly, welfare institutions and redistributive policies are negotiated more smoothly and generously if we presuppose a limited set of common values, identities and assumptions among citizens (Goodhart, 2004).

However, as a society is (or becomes) more diverse, that common culture could be eroded and the definition of a good society seriously stretched. In this scenario, solidarity and egalitarian policies can conflict with diversity, especially with a highly visible ethnic fragmentation. When values become more diverse, and lifestyles more differentiated, then it becomes more difficult to sustain the legitimacy of a universal risk-pooling welfare state (Dagger, 1997). People will start asking –as Goodhart (2004) puts it- 'Why should I pay for them when they are doing things I wouldn't do?'

If social policy demands that individuals allocate part of their income into a common fund from which everyone can obtain at times of need, ethnic fragmentation may constitute a challenge to the postulates of citizenship when the costs and benefits of the welfare state are unfairly distributed (Kymlicka & Norman, 2000:33). The visibility of ethnic fragmentation means that it often overshadows other forms of diversity, and it may ignite questions on the fair contributions of other members of the polity towards the maintenance of the welfare state (Barry, 2001).

When a cultural-ethnic group perceives that it has to assume the cost of the social reproduction and preservation, while other groups enjoy the benefits, we must expect a conflictive social treatment of ethnic fragmentation. In the context of the theory of citizenship, ethnic fragmentation may increase individual perceptions that other members of the community may not have the same idea of reciprocity and contribution that the good society embraces.

Additionally, when we talk about redistribution, reciprocity and solidarity, normally we refer to those concepts within an enclosed world. The welfare benefits will be distributed between a "group of people committed to dividing, exchanging, and sharing social goods, first of all among themselves" (Walzer, 1992: 65).

That "group of people" will have to strive for a definition of community that is wide enough to include people from many different backgrounds (protecting the liberal commitment to diversity), without it being so wide as to become meaningless.

Historically, the standard meaningful political community has been the nation, with its notion of national-citizenship. For Miller (1992: 93) "nations are the only possible form in which overall community can be realized in modern societies". When we talk about the welfare state, we refer to a national welfare state and a national policy of redistribution, a national commitment to some sort of citizen's solidarity (Kymlicka, 2001). Hence, nations remain as the basic unit where the challenge of ethnic fragmentation should be analysed.

Nations are an archipelago of groups (Kukathas, 2003). They support redistributive policies despite their communal differences, always under the assumption that such differences do not threaten the collective identity of its citizens (Miller, 1995:Ch.4). Social redistribution will be always easier to accomplish with strong identities, and when communal identities do not erode citizens' trust in each other (Miller, 1995:96). Citizenry may be diverse, but such diversity must not challenge the conformity on the basic identity and rules for public debate and decision-making.

National identity appears as an identity that gives operational value to the notions of citizenship that different groups share (Kymlicka, 2002:311-312). "Nationality gives people the common identity that makes it possible for them to conceive shaping their world together. Citizenship gives them the practical means of doing so" (Miller, 1992:94).

From the study of minority rights and multicultural citizenship, Kymlicka & Norman (2000) claim that the functioning of national arrangements of social policy and welfare depends not only on the justice or fairness of its institutions and principles, but also on the virtues, identities, and practices of its citizens, including their ability to co-operate, deliberate and feel solidarity with those who belong to different ethnic and religious groups. If citizens do not feel part of a common community they will have a harder time trusting each other and making the contribution that the welfare membership requires.

Therefore, ethnic fragmentation is relevant because it may shape citizens' abilities and willingness to cooperate, deliberate, and feel solidarity with those who belong to different ethnic or cultural groups. Ethnic fragmentation could affect the welfare state because contemporary citizens must learn to interact and share in every day settings on an equal basis with people for whom they might harbour prejudice (Kymlicka, 2002: 301).

It is important to acknowledge that the rise of ethnic fragmentation, as a possible variable affecting the creation of public goods, has fuelled a new political discourse on the subject. For Huntington (2004), ethnic fragmentation -as a by-product of the Latin-American immigration to the United States- will eventually constitute a threat to the foundations of the American economy and the "American nation", as long as it demands the transformation of the welfare and political institutions in order to accommodate cultural, racial and linguistic differences.

For Kymlicka, if it is true that ethnic fragmentation substantially affects the resources that a society devotes to social policy, maybe it is time to reconsider the idea of a national welfare state in favour of a more cosmopolitan approach (2002: 312-315). Finally, closer to the daily political debate, Goodhart (2004) openly asks whether Britain is becoming too diverse to sustain the mutual obligations behind a good society and the welfare state.

All these basic examples of how ethnic fragmentation constitute a renewed topic for the debate on public policies, recognize -beyond the most obvious point of political correctness- that this subject is difficult and controversial in nations that are becoming more and more diverse by the day.

In summary, after reviewing different theoretical links between ethnic fragmentation and notions of citizenship, it is possible to suggest that the apparent centrifugal tendency of ethnic fragmentation not only diminishes a healthy measure of diversity to the polity, but sometimes it even begins to erode and diminish its notions of civic duty and common belonging.

Social mobilization

For some scholars economic growth is the dominant cause of the development of the welfare state (Wilensky, 1975; see also Skocpol & Amenta, 1986). For neo-Marxists the welfare state is a response of the capital-subordinated state to the social reproduction needs of advanced capitalism (Offe, 1984).

A third cluster of literature (probably the most pertinent for this research and the more adequate to explain the mechanism that generated the expansion and reform of welfare state policies and institutions during the post-war period), postulates that the development of welfare states is a product of political mobilization in the context of industrialization, under a social democratic project that leads to socialism or social democratic hegemony (Pierson, 1991:23-37).

In this latter approach, it is possible to include three explanatory propositions: the *traditional social democratic thinking* on the development of the welfare state (Pierson, 1991); the *Power Resources Model* (Korpi, 1983; Pierson, 1991), and the *modernization* hypothesis (Flora & Alber, 1981). These three propositions require the appearance of mass parliamentary democracy, the rise of social democratic parties, strong trade unions, and sustained economic growth (Pierson, 1991; Orloff & Skocpol, 1984).

In line with these arguments, Esping-Andersen postulates that to explain the emergence of the welfare state and the adoption of any specific welfare regime, we must consider three key factors: "the nature of class mobilisation; class-political coalition structures; and the historical legacy of regime institutionalization" (1990: 29). Even more, Esping-Andersen suggests that by looking at the class coalitions that founded the contemporary three worlds of welfare "we can explain not only their past evolutions but also their future prospects" (1990:33).

Accordingly, and in order to link ethnic fragmentation to the adoption of different welfare regimes, this thesis must elaborate on a plausible bridge between ethnic diversity and the conditions of class mobilization and class coalition building. To accomplish this goal, the contributions of Brian Barry (2001) are fundamental.

While elaborating an egalitarian critique of multiculturalism, Barry proposes that the pre-eminence of ethnic and religious (cultural) diversity, as a force driving politic and policy design, has three basic and negative effects on social cohesion: a *diverting effect*, a *contrasting effect* and a *misdiagnosis* effect (Barry, 2001: 299-317).

The *diverting effect* theoretically implies that the pre-eminence of ethnic heterogeneity diverts social energy (for mobilization and coalition-building) from the issues of economic redistributions to issues of recognition.

The prevalence of ethnic fragmentation as a key factor orienting mobilization will complicate class mobilization between ethnic groups, and will favour group mobilization along ethnic and religious identities, with the logical (and negative) effect on the adoption of a more generous welfare regime.

The *contrasting effect* is far more serious because of its apparent implications for the link between ethnic fragmentation and the welfare state. If it peaks as a central factor defining group loyalty and class mobilization, the formation of organizations -such as trade unions- could be seriously threatened. Ethnic fragmentation pre-eminence may erode trust and solidarity among citizens, because it potentially emphasizes differences (ethnic and religious) between the citizenry, rather than commonalities (such as class membership or trade membership). The construction of wide social and class coalitions to force the adoption or expansion of a welfare regime will be complicated by an ethnic and religious agenda overriding that of redistribution.

Finally, the *misdiagnosis effect* suggests that minorities themselves -when ethnic fragmentation is an essential factor for political alignment and mobilization- will use their power to set, not a redistributive agenda, but one of recognition.

Cultural, religious and ethnic groups will "misrecognize" the importance of economic redistribution -via welfare institutions- and opt for policies of cultural attributes as the best option to advance to the well-being of their members. Cultural recognition could be conceived as the essential social issue of political institutionalization, in detriment to a redistributive coalition for social policy design.

The main argument of this explanatory link proposes that when ethnic identity peaks as a factor of social alignment, redistributive social policies decline in favour of policies centred on cultural and racial recognition. Then the pre-eminence of ethnic recognition could hamper the adoption of generous social policies.

Section III

The path to follow

Under the scope of the theoretical framing previously presented, this thesis has a clear path to follow in the chapters to come. First, further and more refined evidence of ethnic fragmentation as a factor negatively associated to levels of social expenditure is required. As commented in section I, the evidence provided by the political economy literature, when linking ethnic fragmentation to social policy, has theoretical and empirical limitations. Thus, this step will constitute an important confirmatory test to validate that a phenomenon worthy of analysis for the social policy research agenda is really occurring. Accordingly, the gathering of data and the statistical analysis must focus on social policy indicators and not emerge as a simple by-product of a research agenda focused not on social policy issues, but on government efficiency and quality.

Second, it is necessary to find a structural link between ethnic fragmentation and social expenditure. As established in this chapter, producing basic evidence of ethnic fragmentation negatively associated to levels of social expenditure cannot be considered sufficient to support the hypothesis guiding this thesis.

This chapter suggests that ethnic fragmentation is structurally linked to social expenditure due to the effects that ethnic fragmentation seems to have on social solidarity and the strength of social notions of common belonging and citizenship. Even more important, this chapter presents a theoretical argument suggesting that ethnic fragmentation could be a factor diverting social and political efforts of class mobilization from an agenda of redistribution towards and agenda of ethnic recognition. All these theoretical propositions will undergo statistical tests in Chapter II.

If the statistical analysis provides evidence to support the pertinence of the theoretical framework offered in this chapter, then it will be possible to revisit all propositions, and refine and discuss, in full, the existence (or non existence) of an underlying mechanism able to explain how ethnic fragmentation may constitute a significant factor explaining social expenditure and social contributions towards welfare provision. That central task will be addressed in the final chapter.

We cannot underestimate the implications for the existence of an effective link between ethnic fragmentation and social expenditure may have for social interaction in contemporary societies. Especially considering that while European-style welfare states are increasingly requiring their citizens to fully participate as members of the community with unavoidable fiscal and labour responsibilities (Lewis, 2001), the presence and visibility of ethnic or religious minority groups has increased. All this is affected by a post 9/11 scenario, and a new imbalance in the structure of international security and immigration.

Finally, another reflection that cannot be ignored, is that an initial confirmation of ethnic fragmentation as an element affecting social policy and the welfare state is not an easy subject, and may constitute a variable that cannot be happily accommodated within the current boundaries of political philosophy and social policy. Therefore, if this thesis is able to establish a structural causal relationship between ethnic fragmentation and different levels of commitment to provide welfare, then it could be feasible to suggest that there is a hidden and primitive factor limiting the foundations of collective action that is not fully accounted for by the current debate on political philosophy, social justice and the welfare state.

Chapter Two
Statistical Analysis

In accordance with the layout of the theoretical framework, this chapter is also divided in two sections. Section I will explore whether there is statistical evidence to effectively associate ethnic fragmentation with different levels of social expenditure. This analysis will aim to provide a confirmatory test of previous evidence indicating the presence of a probable relationship relevant for the field of social policy.

Section II will explore a plausible negative association between ethnic fragmentation and notions of solidarity, citizenship and common belonging.

Even more important, section II will search for a probable link between ethnic fragmentation and the occurrence of the *diverting*, *contrasting* and *misdiagnosis* effects that, as Barry (2001) suggests, could indicate that ethnic fragmentation is changing the focus of social mobilization from issues of social redistribution to issues of ethnic recognition. Therefore, section II will be crucial for the whole thesis, as it will provide statistical support for a relationship between ethnic fragmentation and social expenditure, as well as a hypothesis as to how such a relationship is constructed through the basic concepts that support modern social policy and the welfare state.

Before proceeding to the statistical analysis, it is important to note that aspects such as the selection and construction of dependent and independent variables, the number of observations and the quality of data included in each section, are discussed in detail in the methodological appendixes. However, some basic methodological highlights are included in this chapter in order to facilitate the understanding and assessment of the tests to be conducted.

Section I.

Ethnic Fragmentation and Social Expenditure: documenting a general link

A stable or fixed model of variables

To demonstrate that ethnic fragmentation is relevant for the study of cross-national differences in the provision of social welfare, it will suffice to find a systematic and significant relationship, without pursuing a dominant effect in a regression model. However, to conduct a systematic examination of any relationship between ethnic fragmentation and social expenditure, a stable set of independent (or control) variables is necessary to conduct the analysis (Gill, 2006, and Studenmund, 2001).

I believe that using a stable set of independent variables, instead of a recurrent interchange of control variables, will give any regression model additional robustness. In contrast, if for each regression I use a different set of independent variables the result will be a "tailor made" analysis, where we replace a series of independent variables until ethnic fragmentation reports the desired value or effect. This will only diminish the honesty and validity of any result.

In fact, the frequent abuse of "tailor made" sets of control variables in some quantitative analysis for social sciences has been severely criticized (King, Keohane & Verba, 1994; Landman, 2000), considering that the statistical outcome is first produced and then the theoretical framework is bent in order to explain it.

In this case, I propose the same regression model in all cases, with independent variables included as explanatory (control) factors, together with ethnic fragmentation, directly derived from the theoretical framework (not from a inclusion of *ad hoc* variables selected for the convenience of the research).

Finally, the use of a *fixed* model will also prevent "over-creative" data processing. If ethnic fragmentation is to be included as a variable essential for the study of social policy and the welfare state, its link with social expenditure has to be clear and somehow intuitive, even after the use of econometric methods. This focus will prevent the use of over-sophisticated methods of data processing. Therefore, all statistical analyses have been conducted using Ordinary Least Squared (OLS), with some test of robustness and seemingly unrelated regressions (SUR). I believe that this methodological alignment, together with clear and simple econometric tests, constitutes an important attribute of the validity and pertinence of any findings.[14]

Independent variables

In this thesis, ethnic fragmentation has been introduced as a variable that might affect central characteristics of social policy and the welfare state.

Accordingly, the control (independent) variables included along ethnic fragmentation in the regression model must be derived from variables previously accepted by social policy theory as key factors to explain the development of social policy and the welfare state.

In Chapter I, section II, I present a condensed review of the basic factors that the social policy theory postulates as essential to explain the evolution of social policy and the welfare state: industrialization (Pierson, 1991), mass democracy, sustained economic growth (Korpi, 1983; Flora & Heidenheimer), economic stability and the conditions for class mobilisation (Esping-Andersen, 1990).

[14] OLS methods are very sensitive to outliers that frequently occur in cross-country comparative analysis. Therefore, robust OLS are used in this thesis as confirmatory tests that are not greatly affected by discordant observations (Seber, 2003). Seemingly Unrelated Regressions (SUR) allows the analysis of a system of multiple equations, which are independent of each other on the surface. However, if the equations use the same data, the errors may be correlated across the equations. SUR is an extension of the linear regression model, which allows correlated errors between equations when it is probable that a structural relationship of the variables could exist (Greene, 1998).

As a result of that theoretical framework pointing to five key factors to explain the development of social policy and the welfare state, this thesis will conduct an econometric analysis with the following set of five independent variables: telephone lines per 100 inhabitants (as a *proxy* of industrialization-urbanization); GDP per capita growth rate (as a *proxy* of sustained economic growth); Consumer Price Inflation (as a *proxy* of economic stability); Classification as Electoral Democracy (as a *proxy* of mass democracy), and the *Index of Political Freedom* (as a *proxy* of conditions for class mobilization).[15] Additionally, a control variable on religious fragmentation is included considering that some clusters of the political economy literature have suggested that religious fragmentation could have an effect comparable to ethnic fragmentation.

About the selection of these specific independent variables, it is important to note the following. The range of variables that can be used as *proxies* of factors that the literature postulate as central to explain the evolution and characteristics of social policy are extremely wide, and it is possible to find a great number of pieces of research using very different sets of variables to conduct statistical analysis on this topic. To prevent a "hand-picking" of variables, I followed the findings of two of the most influential authors of the political economy field, Robert J. Barro (1997) and William Easterly (1999).

In his seminal work on the determinants of economic growth, Barro (1997) postulates that the most adequate measure to compare economic growth is precisely the GDP per capita growth rate, which indicates the relative and sustained expansion of a national economy regardless of its starting point.

Additionally, this measure allows for wide comparability among nations with different levels of development. Therefore, I use precisely this measure as a *proxy* of sustained economic growth. Also from Barro (1997:89-118), I selected Consumer Price Inflation as the best *proxy* for economic stability.

[15] For the specification of each independent or dependent variable, their data sources and limitations, please see the Methodological Appendix 2.

In the case of the other three independent variables: telephone lines per 100 inhabitants, classification as electoral democracy, and the *Index of Political Freedom*, I followed the findings of Easterly (1999). This author conducted an analysis aimed to compare the wide diversity of indicators used by different authors to explore the quality of life across nations. He compared a dataset of 81 variables grouped in different categories such as indicators for individual rights and democracy, political instability, transport and communications, among others. From his results (Easterly, 1999:245-246), I selected the variables that show the highest significance as *proxies* for the category of individual's rights and democracy (civil liberties and political rights); and for the category of transport and communications (telephones lines per capita).

There is other very influential research comparing the significance and robustness of a wide number of indicators to explain economic growth by Sala-i-Martin (1997) that presents very similar results to the findings reported by Easterly.

This method to select the *proxies* of independent variables can be disputed, however it offers three major advantages that are essential for this thesis: i) the process of selection is clear and replicable, ii) the selection of variables does not follow an *ad hoc* criteria to obtain desired empirical results, and iii) the set of *proxies* selected is very close to the most robust empirical factors that the political economy literature has identified to explain growth and quality of life, and thus should offer an excellent set of competing control variables to put together with ethnic fragmentation, in order to explain social expenditure.

There are some additional considerations on the set of independent variables that are worth to present. The first control variable, telephone lines per 100 inhabitants, is also a classic measure of the level of economic development

and industrialization.[16] Even more important, it reflects the level and availability of a social channel of communication and exchange of ideas among the political elite and labour groups.

GDP per capita growth rate (not to be confused with GDP per capita) may act as a proxy for the economic conditions faced by citizens, and the expectations individuals may have in relation to the promises (or not) of well-being.

Consumer Price Inflation reflects the landscape of economic stability (or instability) that may induce the formation of coalitions or alliances for the provision of welfare. Esping-Andersen (1990: 177-178) documents how inflation may alter or change the strategies of mobilization and coalition of labour unions and workers.

A variable that monitors democracy (electoral democracy) is also of crucial significance, as it will reflect a quintessential characteristic of a regime's institutionalization, and the margins within which social actors can influence collective decision making and allocation of public resources.

Finally, an *Index of Political Freedom* may work as a proxy of the environment in which social organization, social debate, and social mobilization occur. This measure will be useful for countries that cannot be considered electoral democracies, on the one hand, and on the other, it will help to give a very refined insight into countries already classified as electoral democracies. It is important to remember that electoral democracies have had very different institutional attitudes towards class and labour mobilization; such as in the United States -in the 50's- where there was a very hostile environment for labour unions, and some circumstances in Europe in the 1980's.

[16] This variable has been selected as part of the *Millennium Development Goals Indicators* as a proxy of availability and access to basic economic infrastructure, new technologies, cooperation of the private sector and the level of development of economic sectors such as information and communication. Additionally, data for this indicator is available for approximately 90% of countries and considered very reliable. http://unstats.un.org/unsd/mdg

A final advantage of this *fixed* model of independent and control variables resides in the understanding that it does not attempt to explain the entire differences reported in social expenditure from a cross-country sample, but only to test if ethnic fragmentation is significant after controlling most of the other explanatory variables. It is not a model to explain the integral evolution or characteristics of the welfare state, only to test whether ethnic fragmentation remains relevant after the inclusion of other variables generally accepted as the core factors shaping modern social policy.

When testing the relevance of ethnic fragmentation after controlling for other key variables, it is of the outmost importance to specify the expected link between the set of control variables, and the different dependent variables related to social expenditure and welfare provision that will be analysed. In the following, I present a brief summary of the expected relationship for each variable.

Telephone lines per 100 inhabitants

It is expected that this variable will propose a *positive* relationship with variables related to social expenditure and welfare provision. Higher levels of development, social interactions, communications, and exchange within a society will increase the availability of wealth and public resources, and foster political coalitions supportive of welfare.

GDP per capita growth rate

It is expected that this variable will present a *negative* relationship with variables related to social expenditure, considering that long periods of growth and prosperity will make less urgent the need for a social safety net.

Consumer Price Inflation

It is expected that this variable will offer a *negative* relationship with the variables related to social and welfare provision. From an economic point of view, inflation tends to restrict public spending, and workers tend to avoid wage bargaining when inflation is rampant.

Classification as electoral democracy (electoral democracy dummy), and Index of Political Freedom

It is expected that these two variables will present a *positive* relationship with variables linked to social and welfare provision, since a democratic background, and a political free environment tend to facilitate class and labour organization.

Ethnic Fragmentation and Religious Fragmentation

It is expected that these two variables will show a *negative* relationship with variables linked to social and welfare provision as discussed in detail in the section of theoretical framing.

Once the set of basic definitions for the fixed model, and the expected results for each variable and its assumptions have been established, I can proceed to offer a brief discussion on the operative dependent variables and to present the first econometric analysis.

The first set of regressions

By using data from: Alesina (2002), on ethnic and religious fragmentation; the *Index of Human Development* of the United Nations, the *World Bank* macroeconomics indicators, and from the OECD, it was possible to put together observations for more than 156 countries, from 1990 to 2005[17], for two dependent variables in line with the research question guiding this thesis - government expenditure, and (more important) social expenditure.

The 1990-2005 period was chosen considering the limitation on the availability of data for ethnic fragmentation defined as the probability that two randomly drawn individuals from the population belong to two different ethnic groups. The traditional sources of aggregate and comparable macro-data (OECD, World Bank, IMF, NBER, among others) do not offer measures on ethnic fragmentation. To overcome that lack of empirical evidence, several authors (Mauro, 1995; Easterly and Levine, 1997; La Porta et al., 1999, etc.) have used the *Atlas Narodov Mira* (Miklukho-Maklai Ethnological Institute, 1964), compiled during the soviet era. This atlas has been considered a

[17] For a detailed display of dependent variables and sources please see Methodological Appendix 2.

primary source of data on ethnic and linguistic fractionalization. However, it has a tendency to underestimate racial differences that are not constructed along linguistic lines. Also, it is hard to analyze the effects of ethnic fragmentation in contemporary societies using data from the 60's, especially in a period of global integration.

In an attempt to overcome such limitations, Alesina, Easterly and others (2002) developed a dataset for shares of ethnic and religious groups, which was used afterwards to produce a new index of ethnic fragmentation. The new measure uses data from the *Encyclopaedia Britannica* 2001, the *CIA World Fact Book* and the *Ethnologue Project*.[18] This dataset provides more updated evidence on the ethnic and religious composition of contemporary societies and is available for 201 countries. Despite its advantages, this dataset has two basic limitations: 1) it is a cross-sectional measure without any time series, and 2) the cross-sectional data do not refer to one year in specific, but to observations *circa* 1990.

As a result, the starting point for the construction of all variables (dependent and independent) must be 1990. However, it is reasonable to assume that the effects (if any) of a deep and structural social variable such as ethnic fragmentation would require a long period of time to leave an imprint in social policy decisions. Therefore, I considered it best to use the average of the value reported for each variable over a period of 15 years.

Although this required a very detailed compilation and report on the aggregation of data, the use of the average value of any variable for a long period of time is fundamental to isolate national figures from short term economic shocks or other events (such as civil unrest, regional wars or natural disasters, etc.), that could have an impact on a phenomenon that I expect should have a long term trend.[19]

[18] The new data set and the complementary documentation are available in http://www.stanford.edu/~wacziarg/papersum.html; see also www.ethnologue.com.

[19] For details on the dataset see the Methodological Appendix 2.

Even more important, the use of average values covering 15 years could help to secure that any effect captured by the empirical analysis, will reflect long term or structural trends in social policy decisions associated with different cross-national levels of ethnic fragmentation; that is precisely the central aim of this thesis.

Additionally, the inclusion of the *Human Development Index* (HDI) as a dependent variable together with variables on government expenditure and social expenditure must be noted. The HDI will work exclusively as a reference variable to make sense and double check any data reported in the regression analysis. This is possible because the HDI provides a comparable measure among a broad sample of countries, that summarizes basic concerns of social policy (education, health, and minimum income), and it constitutes a variable to contrast and test the robustness of the expected values defined for the fixed model. [20]

The HDI has been the subject of multiple methodological critics: from the fact that it is highly correlated to data on GDP per capita, to the opinion that it is redundant and does not constitute a meaningful measure of what Human Development really is (McGillivray, 1991; Noorbakhsh, 1998; Sagar & Najam, 1998). However, in this thesis I am not using the HDI as a measure of human development, but as an aggregated indicator of three basic variables: education, health and standard of living according to purchasing power parity.

Let me insist that any relationship that could emerge between ethnic fragmentation and the HDI should not be presented as evidence of ethnic fragmentation as a determinant of human development. Such a proposition would be beyond the scope of the variables used in this thesis. Finally, it is

[20] The Human Development Index (HDI) is a comprehensive indicator that focuses on three measurable dimensions of life quality, which are: 1) Living a long and healthy life, measured by a life expectancy index, 2) Having education, measured by a weighted average of school enrolment and adult alphabetization indexes, 3) Having a minimum level of wealth, measured by an index of per capita GDP, in dollars in constant prices and Power Purchase Parity. The index is constructed as an arithmetic average of the 3 mentioned indexes.

important to note that the HDI is selected as a dependent variable, not as an independent variable, then it does not affect the explanatory power of the model presented

Regarding dependent variables that are key to this thesis, it is worth noting that data for the dependent variable Social Expenditure is expressed as the arithmetic addition of public expenditure in education and health. Both education and health are elements of social policy in developed and in rudimentary welfare regimes; something that does not happen to elements such as unemployment insurance or family care services.

Education and health are core elements in "traditional" welfare states, as well as in new conceptions of an active welfare state, where the provision to individuals of adequate skills and a healthy life are central features. In a cross-country analysis, where different models of welfare regimes are included and where countries at different stages of development are put in the same sample, education and health are elements that offer a broad base for comparison.

Finally, it is possible to argue that data on public expenditure on health and education are not automatically comparable, considering that each country can follow a different method to establish the concepts of expenditure. However, any data reported to international agencies or for internal budgetary considerations, even if they are the result of different approaches or methods, will still contain what we are interested in: a declaration of which share of the public resources a society and its institutional political framework is willing to devote to the creation of specific public goods (Przeworski and Esping-Andersen, 2002).

With all these considerations in mind, an OLS regression analysis was conducted to establish a first essential piece evidence to test whether ethnic fragmentation could be associated with different national levels of government and social expenditure. Results are shown in Table 2.1.

Table 2.1 Ethnic Fragmentation and Government and Social Expenditure

VARIABLES	(1) HDI	(2) Government Expenditure	(3) Social Expenditure
Telephone Lines per 100 habitants	0.00616****	0.152****	0.0550****
	(9.912)	(2.759)	(3.849)
GDP per capita growth rate	0.00577*	-0.534	-0.171***
	(1.647)	(-1.324)	(-2.121)
Consumer Price Inflation	7.74e-06	-0.00103	-0.00166**
	(0.186)	(-0.287)	(-1.733)
Electoral Democracy Dummy[a]	-0.0124	8.059***	2.333***
	(-0.453)	(2.993)	(3.692)
Political Freedom Index[b]	0.00360	1.481****	0.487****
	(-0.795)	(-3.261)	(-4.675)
Ethnic Fragmentation	-0.115****	-7.976***	-2.178****
	(-3.189)	(-2.467)	(-2.628)
Religious Fragmentation	-0.0279	-2.260	-0.547
	(-0.806)	(-0.719)	(-0.686)
Constant	0.664****	42.58****	13.44****
	(11.26)	(7.378)	(9.902)
Observations	156	127	156
R-squared	0.706	0.435	0.538

OLS, t statistics in parentheses
**** p<0.01, *** p<0.05, ** p<0.1, *p<0.15

Dependent Variables (1) Human Development Index Level (2) Government Expenditure (as % of GDP) (3) Government Social Expenditure (Public Expend on Education + Public Expend on Health, both as a % of GDP)

[a] Electoral Democracy Dummy takes the value 0 if the country is not considered as an electoral democracy; otherwise it takes 1 as value. For further technical details refer to Methodological Appendix 2.

[b] Political Freedom is measured on a 1-7 scale, with 1 representing the lowest degree of Freedom and 7 the highest. For further technical details refer to Methodological Appendix 2.

The previous model reports the expected results in accordance with the methodological considerations. In all three regressions, the control variables present the expected sign. Even the contrasting measure of GDP per capita growth rate presents a predicted negative relationship with government expenditure and social expenditure; however, it is only significant with the former.

Consequently, telephones lines prove to be highly significant in all three regressions, and the inflation variable also reports the predicted sign, but is only significant for social expenditure. The political freedom index and the dummy variable for electoral democracies report the foreseen non-significant relationship with HDI; in contrast and just as expected, they report a very significant and positive relationship with government and social expenditure, which constitutes a central result for the assumptions guiding this thesis. The overall explanatory power of the model is within reasonable values in all three regressions, and the number of observations is very close to the biggest sample size in this type of cross-national analysis, 156 countries (see Table 2.1).

Even more important, ethnic fragmentation shows the predicted value for all regressions, and appears significant in all cases. Therefore, it is important to notice, that in the case of social expenditure, ethnic fragmentation maintains its sign and significant value even when other control variables appear also as significant. This first quantitative analysis is aligned with the theoretical assumptions, presented in the previous chapter, and offers a first reasonable solid step to analyse further details of this thesis. However a Robust OLS test is required to confirm preliminary findings. Results for the Robust OLS regression are shown in Table 2.2.

Table 2.2. Ethnic Fragmentation and Government and Social Expenditure, Robust OLS

VARIABLES	(1) HDI	(2) Government Expenditure	(3) Social Expenditure
Telephone Lines per 100 inhabitants	0.00616***	0.152***	0.0550****
	(10.10)	(2.512)	(3.333)
GDP per capita Growth Rate	0.00577	-0.534	-0.171****
	(1.456)	(-1.494)	(-2.711)
Consumer Price Inflation	7.74e-06	-0.00103	-0.00166***
	(0.190)	(-0.401)	(-2.160)
Electoral Democracy Dummy	-0.0124	8.059****	2.333****
	(-0.391)	(3.474)	(3.288)
Political Freedom Index	-0.00360	1.481****	0.487****
	(-0.746)	(3.774)	(4.458)
Ethnic Fragmentation	-0.115****	-7.976***	-2.178***
	(-3.072)	(-2.538)	(-2.596)
Religious Fragmentation	-0.0279	-2.260	-0.547
	(-0.857)	(-0.842)	(-0.628)
Constant	0.664****	42.58****	13.44****
	(10.85)	(8.978)	(8.672)
Observations	156	127	156
R-squared	0.706	0.435	0.538

**** p<0.01, *** p<0.05, ** p<0.1, *p<0.15
Dependent Variables (1) Human Development Index Level (2) Government Expenditure (as % of GDP) (3) Government Social Expenditure (Public Expend on Education + Public Expend on Health, both as a % of GDP), Robust t statistics in parentheses.

The Robust OLS analysis confirms the initial values. Ethnic fragmentation remains negative, significant, and highly robust in its relation with government and social expenditure, although its significance as an explanatory variable for social expenditure marginally declines from .99 to .95. In this scenario, it is of vital importance to reinforce these findings, considering that the aim of this section, as I explained before, is to document an empirical link between ethnic fragmentation and social expenditure in a broad cross-national sample.

To confirm these results, I will try to find a potential structural relationship between the three models of regressions calculated above. If unobservable elements (that is the error terms) of the calculated regressions correlate with each other, I will be able to estimate them through a seemingly unrelated regressions (SUR) system, a method that takes into account the possible correlation between the errors of the specification. Results of the calculation using SUR are shown in Table 2.3.

Table 2.3. **Ethnic Fragmentation and Government and Social Expenditure Seemingly Unrelated Regressions (SUR)**

VARIABLES	(1) HDI	(2) Government Expenditure	(3) Social Expenditure
Telephone Lines per 100 inhabitants	0.00615****	0.152****	0.0577****
	(10.01)	(2.850)	(3.815)
GDP per capita Growth Rate	0.0110***	-0.534	-0.186**
	(2.457)	(-1.368)	(-1.681)
Consumer Price Inflation	1.72e-05	-0.00103	-0.00197***
	(0.430)	(-0.296)	(-2.009)
Electoral Democracy Dummy	-0.0715***	8.059****	3.039****
	(-2.384)	(3.092)	(4.123)
Political Freedom Index	-0.00310	1.481****	0.541****
	(-0.613)	(3.369)	(4.349)
Ethnic Fragmentation	-0.0793***	-7.976***	-1.898***
	(-2.204)	(-2.548)	(-2.144)
Religious Fragmentation	-0.0166	-2.260	-0.921
	(-0.474)	(-0.743)	(-1.071)
Constant	0.555****	42.58****	14.32****
	(8.636)	(7.622)	(9.067)
Observations	127	127	127
R-squared	0.735	0.435	0.553

Dependent Variables (1) Human Development Index Level (2) Government Expenditure (as % of GDP) (3) Government Social Expenditure (Public Expend on Education + Public Expend on Health, both as a % of GDP)
**** p<0.01, *** p<0.05, ** p<0.1, *p<0.15
z statistics in parentheses

The SUR method for the estimation of the three regressions confirms both the significance and the absolute value of the coefficients. Once again, we find empirical evidence supporting the robustness of the results obtained. Accordingly, it is possible to suggest that this thesis has offered a model that is relevant to explain cross-national differences in public and social spending, within a broad international sample.

Furthermore, this model provides reasonable evidence that suggests that ethnic fragmentation could be included as a significant variable to explain differences in the welfare provision along the lines of the theoretical framing presented in the previous chapter.

However, before presenting the summary and the preliminary conclusions, I would like to present an additional test that documents further the empirical link this thesis aims to construct.

The OECD test

Until this point, the international sample under scrutiny (between 127 and 156 national observations) has included an ample range of countries at different stages of development, contrasting economic structures and ideological principles. Obviously, the econometric analysis and its confirmatory tests can control for that; however, I propose to test the model and the ethnic fragmentation variable in a more homogenous sample. The OECD members represent an ideal group to conduct such an exercise.

All OECD members are electoral democracies and subscribe to principles of open market economies. Nevertheless, this uniformity in principles is accompanied by large differences in income and a very broad range in the levels of development that goes from the US and the UK, to Turkey and Mexico. This interesting mixture will require, for example, that the variable of electoral democracy has to be excluded from the model to prevent problems of statistical estimation (as all observations are electoral democracies), but will also make it possible to test whether small differences in political freedom within democracies are pertinent to explain differences in social expenditure.

More important, if the model and ethnic fragmentation seem relevant in a cluster that includes some of the most developed economies, it will constitute relevant and positive evidence for this thesis. The result of the analysis for a sample restricted to the OECD is shown in Table 2.4.

Table 2.4. Ethnic Fragmentation and Government and Social Expenditure within OECD countries

VARIABLES	**Government Expenditure**	**Government Expenditure,** (Robust OLS)	**Social Expenditure**	**Social Expenditure,** (Robust OLS)
Telephone lines per 100 inhabitants	-0.312**	-0.312***	0.0615	0.0615
	(-1.931)	(-2.512)	(0.858)	(0.914)
GDP per capita Growth Rate	-2.516**	-2.516***	-2.997****	-2.997****
	(-1.739)	(-2.520)	(-3.949)	(-6.115)
Consumer Price Inflation	0.00927	0.00927	0.108	0.108***
	(0.0511)	(0.103)	(1.381)	(2.403)
Political Freedom Index	6.160****	6.160****	3.044****	3.044****
	(3.045)	(3.260)	(3.615)	(4.756)
Ethnic Fragmentation	-11.30*	-11.30	-4.489*	-4.489
	(-1.551)	(-1.371)	(-1.175)	(-1.159)
Religious Fragmentation	-11.99**	-11.99***	-9.401****	-9.401****
	(-1.974)	(-2.256)	(-2.953)	(-2.896)
Constant	76.99****	76.99****	37.26****	37.26****
	(5.746)	(7.827)	(6.437)	(6.446)
Observations	29	29	30	30
R-squared	0.444	0.444	0.681	0.681

OLS, t-statistics in parentheses
**** p<0.01, *** p<0.05, ** p<0.10, * p<0.15

Once again, the statistical analysis reports results aligned with the theoretical framework. The model -as a whole- has a high explanatory coefficient. Subtle control variables, such as GDP per capita growth rate reports a negative relationship with government and social expenditure for OECD countries, just as in the whole sample and according to theoretical predictions. Also, even within OECD, differences in the Political Freedom Index have a negative relationship with the welfare state, just as social policy theory predicts.

However, the most important result is that ethnic fragmentation reports a significant value for the OLS model and the right negative sign with the robust OLS test. Consequently, it is possible to suggest that ethnic fragmentation seems to be a relevant variable to explain cross-national differences in levels of government and social expenditure even among some of the most developed democracies and open market economies in the world. This test adds confirmatory evidence for this section.

Summary

This section's main purpose was to document a statistical relationship between ethnic fragmentation and different levels of government and social expenditure. From samples ranging from 156 to 27 countries, and by using a standard model of control variables, it is possible to confirm that ethnic fragmentation reports a systematic, negative and significant relationship with government and social expenditure.

The control variables performed in the direction predicted by the theoretical framework in all tests and, in most cases, with significant values. Control variables used as *proxies* for different levels of industrialization, urbanization, economic growth, economic stability and conditions for class mobilization displayed the expected relationship. The set of independent variables, as a whole, prove to have a strong explanatory power, which indicates a good specification of the model and the theory behind it.

In sum, ethnic fragmentation remains as a relevant factor to be taken into account, even after controlling for the variable that the social policy theory postulates as the shaping elements behind different levels of social provision. Thus, with a high level of confidence it is possible to propose that a phenomenon of high interest for social policy is truly occurring and that it is necessary to explain how it is happening.

Following these results, in the next section I will test whether the underlying mechanism presented in the theoretical chapter of this thesis supports an empirical test, as a viable answer to explain the structural relationships that could link ethnic fragmentation to different levels of social provision.

Afterwards, in the last chapter of this thesis, I will return to discuss some detailed aspects of the empirical findings of this first analysis. However, before that, it is necessary to present a complete picture of statistical results; that will be the purpose of section II.

Section II

Ethnic Fragmentation and the foundation variables of social policy

As demonstrated in the previous section, a simple empirical link between ethnic fragmentation and different levels of social expenditure can be reasonably documented. In this section, I will try to present an explanation of how this relationship could be constructed.

In the theoretical Chapter I suggest that ethnic fragmentation could influence decisions on social expenditure because it erodes notions of social solidarity and common citizenship; eventually producing the effects that Barry (2001) and White (2003) postulate as the results of a multicultural agenda, shifting the focus of social class mobilization from issues of redistribution towards issues of cultural recognition. In this context, in the next pages I will conduct a series of basic tests in order to assess whether different variables -used as *proxies* of solidarity, citizenship, and conditions for social class mobilisation- are systematically and negatively associated with ethnic fragmentation.

A first test: ethnic fragmentation and solidarity

As discussed in the theoretical chapter, the notion of solidarity comprises empathy, need for each other, and shared identities. Habermas (1995) suggests that social policy cannot be imagined without the notion of solidarity, and, consequently, redistribution is not possible without a capacity for empathy for the situation of others. Durkheim postulates that solidarity emerges because individuals realize that they need each other, and Weber (ed.1978) indicates that the strength of solidarity depends on the strength of shared identities.

Based on these theoretical definitions, in order to test whether ethnic fragmentation effectively erodes notions of solidarity and common identity, it is necessary to have a specific variable that works as proxy of social solidarity.

Stjerno (2005) suggest that solidarity is concerned with the conditions under which people are willing to contribute to collective aims. Solidarity implies a level of redistribution, and the latter is not possible without institutions that gather collective resources, prevent free riding, and secure enforcement (Parsons, 1951). Thus, solidarity may be defined as the preparedness to share resources with those in need, especially or essentially through taxation and redistribution organised by the state (Stjerno, 2004).

Accordingly, in order to test if ethnic fragmentation is affecting notions of solidarity and shared identities, it is possible to conduct a very straightforward empirical analysis: whether ethnic fragmentation can be systematically associated with lower levels of government tax revenues. Under this assumption, a regression analysis was performed using the same set of control variables defined in the previous section, to test for any significant relationship between ethnic fragmentation and solidarity's proxy expressed as total government revenues as percentage of the GDP. Results are shown in Table 2.5.

Table 2.5. Ethnic Fragmentation and Total Government Revenue

VARIABLES	**Government Revenue**	**Government Revenue** (Robust OLS)
Telephone lines per 100 inhabitants	0.173****	0.173***
	(3.250)	(2.301)
GDP per capita Growth Rate	-0.228	-0.228
	(-0.582)	(-0.548)
Consumer Price Inflation	-0.00286	-0.00286
	(-0.820)	(-1.212)
Electoral Democracy Dummy	8.371****	8.371****
	(3.206)	(3.299)
Political Freedom Index	1.476****	1.476****
	(3.406)	(3.053)
Ethnic Fragmentation	-6.846***	-6.846**
	(-2.177)	(-1.951)
Religious Fragmentation	-5.626**	-5.626**
	(-1.841)	(-1.812)
Constant	42.80****	42.80****
	(7.705)	(7.164)
Observations	128	128
R-squared	0.475	0.475

t-statistics in parentheses
**** p<0.01, *** p<0.05, ** p<0.10, * p<0.15
Dependent Variable: Total Government Revenue (as % of GDP).

The OLS and the OLS Robust analysis report results aligned with the basic predictions. The model has good explanatory power, and the number of observations is still adequate (128). It is worth discussing that the proxy variable for development and easiness of social interaction (Telephones lines per 100 inhabitants) appears, as expected, with a positive and strong significance to explain government revenue. It may be assumed that the development associated with telephones lines availability also facilitates the enforcement and administrative order essential for efficient tax collection.

GDP per capita growth rate appears as not significant, but reports the correct negative sign that could be expected from a logic of low taxation levels, associated with policies to incentive economic expansion. Consumer Price Index is also not significant, but as expected presents a correct sign. However, the proxy variables for electoral democracy and political freedom report a strongly significant and positive relationship with government revenue in both the OLS and the Robust OLS analysis. The channels for public participation in

the allocation of resources, and specially the public accountability that democracy and political freedom reflect, seems to constitute a solid platform for revenue expansion. This is aligned with an ample range of findings in that field of research (Barro, 1998), and more important, with the predictions established in this thesis.

In reference to the central variable for this thesis, ethnic fragmentation appears as strongly, significant and negatively associated with government revenue in both the simple and robust regressions. This finding reinforces the propositions of the theoretical framework that ethnic fragmentation may be taken into account as a relevant factor for social policy expenditure in the allocation side of the equation, as well as on the side of availability of public resources to pay for social provisions. Once more, this finding supports the assumptions at the core of this thesis.

Contrary to the result shown in the previous section, where religious fragmentation did not appear as a significant variable, it now emerges as a relevant variable. Ethnic and religious fragmentation could both be assimilated as factors eroding the notion of common belonging presented in the theoretical framing, with similar implications for social expenditure. The implications of such finding will be thoroughly discussed in Chapter IV.

However, at this point of the empirical analysis, it is possible to state that ethnic fragmentation seems to have a statistically relevant association with lower levels of government tax revenues and, accordingly with the theoretical framework, this in turn could suggest a direct link between ethnic fragmentation and the decline or erosion of notions of social solidarity and common identities. This constitutes a central empirical piece for the discussion to be conducted in Chapter IV on the existence (or not) of an underlying mechanism that could explain how ethnic fragmentation may affect the welfare state's central characteristics.

Due to the importance of the regression's empirical results, as in the previous section, it is fundamental to confirm these results. Therefore, the same regression analysis conducted for the whole sample will be performed again exclusively for the OECD members. Results are shown in the following table.

Table 2.6 Ethnic Fragmentation and Total Government Revenue within OECD countries

VARIABLES	**Government Revenue**	**Government Revenue** (Robust OLS)
Telephone lines per 100 inhabitants	-0.285***	-0.285****
	(-2.436)	(-2.966)
GDP per capita Growth Rate	-1.517	-1.517
	(-1.225)	(-1.341)
Consumer Price Inflation	-0.175	-0.175***
	(-1.374)	(-2.401)
Political Freedom Index	6.157****	6.157****
	(4.485)	(6.274)
Ethnic Fragmentation	-12.65**	-12.65**
	(-2.030)	(-1.792)
Religious Fragmentation	-14.25***	-14.25***
	(-2.745)	(-2.747)
Constant	75.58****	75.58****
	(8.006)	(9.237)
Observations	30	30
R-squared	0.689	0.689

OLS, t-statistics in parentheses
**** p<0.01, *** p<0.05, ** p<0.10, * p<0.15
Dependent Variable: Total Government Revenue (as a % of GDP)

As Table 2.6 shows, ethnic fragmentation remains significant to explain government expenditure and revenue. The model seems aligned with the theoretical proposition that greater levels of ethnic fragmentation could translate into lesser amounts of government expenditure and tax revenue, even within OECD members. However, it is important to report that ethnic fragmentation marginally declines as a significant indicator of social expenditure among these democracies, just as religious fragmentation emerges as a strongly significant and negative determinant. Again, this could be

explained within the theoretical framing, as long as we accept that religious fragmentation may also erode notions of solidarity, and the common notion of belonging between different ethno-cultural groups. I will provide further detail in section II of Chapter IV.

A second test: ethnic fragmentation and social empathy and mobilisation

As established in the theoretical section of this thesis, a central level of empirical analysis will be necessary to test whether ethnic fragmentation triggers the *diverting*, *contrasting*, and the implicit *misdiagnosis* effects postulated by Barry (2001) as the challenging factors inducing a clash between multiculturalism and the welfare state. Considering that this empirical analysis can provide direct evidence of ethnic fragmentation affecting social mobilisation towards social redistribution, its discussion will be major aim in the pages to come.

a) Testing for a diverting effect

The *diverting* effect implies that issues of cultural or racial recognition will prevail over those of economic redistribution, as factors orienting public participation (or even mobilization). To analyze this effect, this thesis applies data from the *World Values Survey*,[21] on topics that may reflect social stance in two essential areas: *empathy* for others, and attitudes towards redistribution and equality (selected variables are shown on Table 5.1.)

To test *empathy*, three questions were selected:[22] i) *From the list shown, which groups of people would you not mind to have as neighbours?* 'Acceptance of neighbours of different race' is taken as a proxy indicator of how deep a

[21] See Methodological Appendix 2.

[22] The variables are expressed as an average of the 1995 and 2000 figures. Although the 1995 value comes from a previous *World Value Survey*, it was possible to use this, since the source was reported, and was methodologically consistent with the 2000 figure. For further technical details on the variables, refer to Methodological Appendix 2.

racial/ethnic cleavage may be present as a factor of differentiation; ii) *To what extent do you feel concerned about the living conditions of your fellow country men?* 'Very concerned' is taken as an indicator of the degree of empathy that citizens may feel for other members of the community beyond their families, and *iii) How proud are you to be (NATIONALITY)?* 'Very proud' is taken as a marker of citizens' perception regarding the value of their membership to a broad community. In accordance with the theoretical discussion presented in this thesis, it is expected that ethnic fragmentation will be *negatively* associated with all three variables.

To test for attitudes towards solidarity and redistribution, three additional variables were chosen: i) Do *we need larger income differences as incentives for individual effort?* 'Agree with larger incomes' is taken as a proxy for a trade-off between two central priorities to this dissertation: individualistic achievement versus egalitarian commitment; ii) Is *competition good to stimulate people to work hard and develop new ideas?* 'Competition is good' is taken as an indicator of the strength of those perceptions regarding that individuals need each other to achieve their goals, and iii) *In political matters, people talk of "the left" and "the right". How would you place your views on this scale, generally speaking?* 'Right wing' is taken as an indicator of general political alignment within a society against agendas of social redistribution.

Once more, the contributions of Weber, Durkheim, Walzer, and Miller discussed in the theoretical framework[23] postulate that ethnic fragmentation may be *positively* related with all these variables.

In general terms, it is possible to say that *empathy* proxies will test individuals' perceptions of mutual belonging and communal identity; it is a relationship between "we" and they". Proxies for *solidarity* will test for a trade-off between egalitarianism versus individualistic freedom. Results for the statistical analysis, using the *fixed* model, are shown in Table 2.7.

[23] See theoretical framework, section II.

Table 2.7 Ethnic Fragmentation and a *diverting* effect

	Proxy Variables for Empathy			Proxy Variables for Solidarity/Redistribution		
	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	Would accept neighbours of different race? (Yes)	How concerned are you about countrymen ? (Very)	How proud are you of your nation? (Very)	More equal or more unequal incomes: Larger incomes as incentives (Agree)	Competition is good: It stimulates new ideas (Agree)	Political Scale (Right)
Telephone Lines per 100 inhabitants	-0.23*	-0.268*	-0.70****	0.11****	0.099***	0.078****
	(-2.105)	(-1.565)	(-3.768)	(2.744)	(2.303)	(2.878)
GDP per capita Growth Rate	0.800	0.692	0.0392	0.446*	0.295	0.546***
	(1.007)	(0.333)	(0.0282)	(1.535)	(-0.924)	(2.428)
Consumer Price Inflation	-0.025***	0.0382	-0.0206	-0.00380	0.00103	-0.00183
	(-2.265)	(1.303)	(-1.056)	(-0.935)	(0.227)	(-0.670)
Electoral Democracy Dummy	10.44**	25.27*	16.81**	-2.242	-0.0784	-3.707****
	(1.949)	(1.632)	(1.792)	(-1.141)	(0.0297)	(-2.808)
Political Freedom Index	2.018***	1.614	2.892**	-0.443	-0.140	-0.306*
	(2.208)	(0.994)	(1.821)	(-1.296)	(-0.340)	(-1.310)
Ethnic Fragmentation	-13.83***	-20.4**	-7.944	-1.520	0.839	0.646
	(-2.114)	(-1.802)	(0.713)	(-0.633)	(0.302)	(-0.407)
Religious Fragmentation	-3.252	-10.21	-26.8****	3.291*	6.98****	3.085***
	(-0.573)	(-1.059)	(-2.720)	(1.500)	(2.815)	(2.142)
Constant	8.401	71.61***	113.4****	0.656	3.941	-1.730
	(0.744)	(2.619)	(5.803)	(0.156)	(0.743)	(-0.608)
Observations	70	32	74	64	65	70
R-squared	0.406	0.402	0.376	0.305	0.280	0.437

OLS, t-statistics in parentheses
**** p<0.01, *** p<0.05, ** p<0.10, * p<0.15

The model reports a reasonable adjustment level for all six regressions (three for *empathy* proxies, and three for solidarity proxies); and the numbers of observations are all of adequate size. Several independent variables show significant value, and accordance with the predicted sign. However, it is

important to focus the analysis on four key factors: on the one hand, electoral democracy and political freedom, and on the other, ethnic and religious fragmentation. According to the theoretical framework, we can expect that this set of key factors will be essential to explain clashing trends for a *diverting* effect.

As shown in Table 2.7, ethnic fragmentation presents a negative and significant relationship with citizens' concern about fellow countrymen, and the acceptance of people of a different race as neighbours. This is consistent with the theoretical assumptions that ethnic fragmentation will diminish social empathy beyond ethnic and familiar groups (the core of a *diverting* effect). On the contrary, political freedom and democracy report a significant and positive relationship with acceptance of different race neighbours, as with pride in national membership.

Additionally, electoral democracy has a positive and significant association with concern about other fellow citizens; political freedom also reports the predicted positive relationship, but without reaching a significant value. It is worth noting that religious fragmentation reports a very negative and significant relationship with pride in belonging to a given nationality. In conclusion, it is reasonable to say that the *empathy* side of a *diverting* effect seems to be confirmed.

On the side of solidarity and redistribution for a *diverting* effect, the results are only partially aligned with the predictions. Electoral democracy and political freedom show a predicted negative relationship for all three proxies of solidarity, but do not have a statistical significant value to explain citizens' attitudes favouring large income differences and competition in the labour market. Notwithstanding, electoral democracy and political freedom report a very important and significant negative relationship with political alignment towards the right, just as foreseen. Ethnic fragmentation does not report a significant value on this side of the model; however, religious fragmentation

shows a strongly significant association with all variables favouring income inequality, economic competition, and right wing positioning in the political scale. In sum, it is possible to suggest that ethnic fragmentation seems able to explain a moderate *diverting* effect, and if religious fragmentation is included, a full *diverting* effect could emerge, adding to the theoretical mechanism that I argue links ethnic fragmentation with the welfare state, which is central evidence for this thesis.

b) Testing for a *contrasting* effect

The analysis of a *contrasting* effect requires a very straightforward procedure. Brian Barry (2001) postulates that a contrasting effect caused by multicultural variables (as ethnic fragmentation) will reduce the number of collective labour agreements, and affiliation to labour unions, and that in turn will hamper social mobilisation in favour of social policy and the welfare state (Esping-Andersen, 1990; Pierson, 1991, among others). Under this scenario, the model of control variables will be tested as an explanatory set for national differences in the coverage of collective wage bargaining and membership size of trade unions. To conduct this statistical analysis, data on people covered by collective bargaining, and the size of labour unions was regressed. Results are shown in Table 2.8.

Table 2.8 Ethnic Fragmentation and Collective Bargaining Coverage and Labour Union Membership

VARIABLES	(1) **Collective Bargaining** [a]	(2) **Labour Union Membership** [a]
Telephone lines per 100 inhabitants	0.891****	0.339
	(2.451)	(0.845)
GDP per capita Growth Rate	-11.88****	-5.840
	(-2.588)	(-1.489)
Consumer Price Inflation	0.0307	0.0835*
	(0.416)	(1.534)
Electoral Democracy Dummy	-0.830	17.85
	(-0.0213)	(0.656)
Political Freedom Index	-1.655	1.753
	(-0.364)	(0.408)
Ethnic Fragmentation	-45.78**	-25.96
	(-1.740)	(-0.948)
Religious Fragmentation	-48.49***	-48.52**
	(-2.033)	(-1.867)
Constant	58.42	79.92
	(0.902)	(1.437)
Observations	30	33
R-squared	0.587	0.363

OLS, t statistics in parentheses
**** p<0.01, *** p<0.05, ** p<0.1, *p<0.15

Dependent Variable (1) Number of Persons Covered by Collective Agreements/Total Employment, (2) Total Labour Union Membership/Total Employment.
[a] Source: Lawrence, S.; Ishikawa, J. (2005) Social Dialogue Indicators, Trade union membership and collective bargaining coverage: Statistical concepts, methods and findings, Working Paper 59, Geneva, *International Labour Office*, 2005.

As shown in Table 2.8, there is consistent evidence to suggest that ethnic fragmentation may be able to produce a c*ontrasting* effect. Ethnic fragmentation reports a negative and strong relationship with the percentage of workers covered by collective agreements, and shows a negative but not significant link with labour union's membership size. Just as the theoretical framework predicted for a factor that erodes support for social mobilization and increases social alignment along cultural and racial differences.

An additional Robust OLS test was conducted to confirm the previous results (See Table 2.9). Findings were similar; however, it is worth to note that in this specific test ethnic fragmentation reached a significant value for its relationship with labour union's membership size; a very important factor to effectively suggest that ethnic fragmentation could ignite a *contrasting* effect.

Table 2.9 Ethnic Fragmentation and Collective Bargaining Coverage and Labour Union Membership, Robust OLS

VARIABLES	(1) **Collective Bargaining** [a]	(2) **Labour Union Membership** [a]
Telephone lines per 100 inhabitants	0.891**	0.339
	(2.533)	(0.990)
GDP per capita Growth Rate	-11.88****	-5.840
	(-2.835)	(-1.449)
Consumer Price Inflation	0.0307	0.0835****
	(0.450)	(3.350)
Electoral Democracy Dummy	-0.830	17.85
	(-0.0266)	(0.842)
Political Freedom Index	-1.655	1.753
	(-0.328)	(0.450)
Ethnic Fragmentation	-45.78**	-25.96*
	(-2.023)	(-1.256)
Religious Fragmentation	-48.49***	-48.52****
	(-2.376)	(-2.951)
Constant	58.42	79.92**
	(0.996)	(1.812)
Observations	30	33
R-squared	0.587	0.363

Robust OLS, t statistics in parentheses

**** p<0.01, *** p<0.05, ** p<0.1, *p<0.1

Dependent Variable (1) Number of Persons Covered by Collective Agreements/Total Employment, (2) Total Labour Union Membership/Total Employment.

[a] Source: Lawrence, S.; Ishikawa, J. (2005) Social Dialogue Indicators, Trade union membership and collective bargaining coverage: Statistical concepts, methods and findings, Working Paper 59, Geneva, *International Labour Office*, 2005.

The importance of these findings cannot be underestimated. Statistical results of ethnic fragmentation affecting the size of membership of labour unions and the number of workers covered by collective contract agreements constitute invaluable evidence that enables the construction of a link between ethnic fragmentation and quintessential factors that social policy theory establishes as central for the evolution of modern social policy and the welfare state.

The last regression shows an empirical and verifiable link between ethnic fragmentation and key features of labour organisation. It may be said that few variables are as important to explain different national characteristics of social policy and the welfare state as the strength of labour union and its mobilisation. Thus, this piece of statistical analysis is a crucial element for the discussion to be conducted in the next chapters.

Summary

This section has produced evidence on how ethnic fragmentation can affect levels of government tax revenue, with all its theoretical implications for the erosion of social solidarity and citizenship. Additionally, the statistical tests conducted to explore whether ethnic fragmentation is producing the *diverting* and *contrasting* effect, as factors diminishing social energy in favour of an agenda of social redistribution, has shown positive evidence on the existence of such link. Consequentially, an empirical link between ethnic fragmentation and both a *diverting* and *contrasting* effect, could be reasonably interpreted as the mechanism through which ethnic fragmentation produces a *misrecognition* on the importance of redistribution and the welfare state within a given country or society, with the consequent decline of resources devoted to social provision.

In sum, with hard evidence that could support the existence of a systematic link between ethnic fragmentation and social solidarity, *empathy* for others and the environment for class and labour union mobilisation, it is feasible to suggest that this thesis has the basic elements to construct a discussion on how ethnic fragmentation could be considered a factor that deserves more attention in the social policy debate and in the theory of the evolution of the welfare state. That will be central aim of the following chapters.

Chapter Three
Ethnic fragmentation and the allocation of citizenship

In the previous chapters, I have explored and suggested that ethnic fragmentation affects the redistributive measures of social policy and the modern welfare state that take place within pre-existing communities, namely independent countries. Within these independent countries, different social goods are shared between members of the polity, according to different scenarios of social class mobilization, levels of development and political institutions. I propose that these scenarios may also seem affected by ethnic fragmentation.

If we presume that social goods, whatever they may be, are shared basically among members of the polity, then the most primary and basic good to be distributed in a community is precisely membership of that community.

Members would be entitled to a superior level of social protection and provision than non-members, and many welfare policies could follow a members-only policy. Even more important, members will be entitled to participate in the decision-making process of the community, and will be able to shape the institutional and legal membership arrangements of the polity.

On the basis of membership emerges the concept of citizenship as "a status bestowed on those who are full members of a community" (Marshall, 1950, ed.1992: 18). For social policy theory, the welfare state emerges as a feature that could ensure that every individual member of society is viewed and received as a full member of the polity, able to pursue her individual ideals of the good life by assuring different levels of *de-commodification* (Esping-Andersen, 1990:48).

Citizenship has also allowed for the institutionalisation of solidarity, the latter defined as the willingness to share resources with others by personal contribution to those in struggle or in need through taxation and the redistribution organised by the state (Stjerno, 2004).

Under the scope of the theoretical framework presented in this thesis, there is evidence to support that ethnic fragmentation could be identified as a variable shaping different levels of social provision and also affecting the factors that the literature assumes as key elements behind the welfare state's development and its defining characteristics: social solidarity and social mobilization.

Furthermore, by using the same theoretical framework, I believe it is possible to conduct an exploratory analysis on whether ethnic fragmentation may be considered a relevant element when analyzing the development of social policy. That area, as proposed in previous paragraphs, is related to the requirements established by the polity to acquire the status of citizen.

Taking into account that an historical analysis of the evolution of citizenship, and its related theories will definitely go beyond the scope and field of study of this thesis, in order to explore if ethic fragmentation can be associated with national differences in legal and administrative requirements for attaining citizenship, I propose an exploratory review of citizenship and nationality laws considering a selected group of countries.

If ethnic fragmentation is proved to be a statistically significant variable affecting different elements of the welfare state, I believe it is also worthy of study whether ethnic fragmentation is affecting as well the "entry requirements" that a polity sets for conferring citizenship and allocating all rights and entitlements that such a membership implies.

The admission policies required by different countries are quite relevant, given that they are established to "defend the liberty and welfare, the politics and culture of a group of people committed to one another and to their common life" (Walzer, 1992: 75). As well, these admission policies are significant considering that only if the state makes a selection among would-be members, will it be possible to guarantee the loyalty, security and welfare of the whole community, its collective values and ideas of a good society.

These national admission policies would reflect something more than a basic check-list for being subject to the laws of a state, and should be related to the higher or lower levels of requirements that different countries establish to keep coherence between specific levels of provision of goods, services and welfare within the polity and the cohesiveness and strength of the community and its members (Miller, 1992:94).

Even more important, as Esping-Andersen suggests (1992: 48-50), the "welfare worlds" closely associate notions of membership and citizenship with the provision of welfare: in his typology, the Anglo-Saxon world builds welfare entitlement around demonstrable and "abject" need; the Continental world subjects welfare entitlement to contributions via labour market, and the Nordic world fully rests eligibility on being a citizen. More generous and more de-commodifying welfare provisions may require a higher level of development of the notions of membership, and probably higher levels of entry requirements to the polity.

Accordingly, in the following pages I will analyze the relationship, if any, between ethnic fragmentation and different aspects of the policies established by a selected group of countries to confer citizenship. That analysis will follow two basic routes. Firstly, I will explore whether ethnic fragmentation can be associated with differences among country requirements to become a citizen, as a proxy of different levels of national commitment to keep a sense of identity and purpose that binds citizenry together as a national community.

Secondly, I will explore if changes in levels of entry requirements among countries can also be linked to a national belonging, to different worlds of welfare, and to any associated level of ethnic fragmentation.

In order to accomplish the analysis described above, I propose to follow the next course of study. First, a brief summary of the principles that rule the ways in which citizenship can be conferred or acquired will be presented, in order to differentiate principles of citizenship based on ethno-cultural traditions, from principles that put the emphasis of citizenship on the development of an identity around common values, civic duties and allegiance to the state. Second, a cross-national comparative analysis will be constructed to compare how different naturalization principles may fit to different levels of ethnic fragmentation and welfare worlds. Finally, a discussion of findings and a brief summary will be presented.

Section I.

Ways of allocating citizenship

The right of bloodline and the right of birth place

The three principles or ideals to confer citizenship at birth or by naturalization are: *Aristotelian* ideal, *jus sanguinis* and *jus soli* principles. While each principle privileges a different perspective for determining the political community of citizenship, each one has implications for public perceptions of the meaning of nationhood, cultural identity and the integration or not of immigrants as full members of the polity (Brubaker, 1989). None of these principles is used in the contemporary world as an absolute, but rather as a heuristic marker.

The *Aristotelian* ideal is built on normative beliefs about who is capable or fit. This approach evaluates who is capable of reason and who is able to calculate the general will of the community as a whole. As many authors suggest this principle has historically been used to restrict citizenship to property-owning males (Yashar, 2005).

Those who fit the *Aristotelian* principle were granted full citizenship, those who did not were relegated to secondary status, and they were considered subjects, not citizens.

The *jus sanguinis* principle assumes that states extend and restrict citizenship according to the principle of national descent or kingship. It is predicated that the fundamental political community is based on descent or ethno national origins. *Jus sanguinis* is the right of blood and, accordingly, citizenship is earned by inheriting the nationality of one of the parents. Under this principle, a child born outside his/her parent's country may derive citizenship from his/ her family and therefore becoming a citizen of his/ her parents' country. Also, a child born in a country that follows the principle of *jus sanguinis* does not automatically become a citizen of that country unless the parents are citizens.

The third principle is *jus soli*, built on the assumptions that geography and civic ties primarily define a community. States extend citizenship to those who are born in a given territory, and they naturalize foreigners that meet a set of conditions, such as requirements of residence, basic knowledge of the language and governmental structure, good moral standing, often an oath of allegiance and an overall commitment to the principles of the polity. *Jus soli* confers citizenship at birth when a child is born within the borders of the country. This principle establishes that a person born in a country immediately becomes a citizen of that country, regardless of his/ her parents' citizenship or legal status of residence.

The most common methods to acquire citizenship in the contemporary world are *jus soli* and *jus sanguinis*, or a combination of both. These two principles are not just about inclusion but also about delimiting membership and rights in the state system. For *jus sanguinis* the question of who can be a citizen is an ethno-cultural question. *Jus soli* claims to be ethno blind, and then the sharing of a common and meaningful identity among citizens is the fundamental question to receive full membership in the polity (Brubaker, 1998:150-153).

Using these very basic categories to understand how different countries confer citizenship, it is possible to construct some propositions about a possible relationship between different worlds of welfare, the way to become a citizen and ethnic fragmentation.

Principles of citizenship and ethnic fragmentation: basic propositions

The research puzzle for this thesis, presented in Chapter I, postulates that ethnic fragmentation is relevant for the study of social policy because it increases the tension between the concepts of liberty (diversity), on the one hand, and solidarity (membership), on the other, that sustain modern national welfare arrangements within contemporary societies.

The main premise of this research suggests that as a society becomes more diverse, the common culture and identity that legitimizes mutual obligations and contributions could be eroded, and then conflicts between social solidarity and diversity may arise.

Following this theoretical framework, in Chapter II, the statistical analysis reports that ethnic fragmentation shows a significant relationship with low social expenditure, government revenue, and percentage of the GDP across more than 100 countries.

Even more important, ethnic fragmentation seems to be significantly and negatively associated with variables such as collective bargaining coverage in the labour market, membership of labour unions, and public support for social redistribution.

In line with these proposals and empirical findings, in this chapter I will present two propositions to test for any plausible link between ethnic fragmentation and the ways different welfare worlds allocate citizenship among their population. That is the next step.

Proposition I

Firstly, there should be a correspondence between the strictness or looseness of requirements that countries establish to confer citizenship/nationality, and the level of the national provision of welfare, as a feature to secure that generous social provision is linked to strong and cohesive communities (Miller, 1992:94); and secondly, there is also empirical evidence suggesting that countries with higher levels of ethnic fragmentation have lower levels of social provision and empathy towards redistribution, then it might be reasonable to expect that countries with the more generous welfare regimes will be associated with rules that confer citizenship favouring national descent or ethno-cultural factors. In more direct terms:

> The more de-commodifying welfare states will be associated with rules to confer citizenship that follow or favour the *jus sanguinis* over the *jus soli* principle, as a rudimentary form to achieve cohesiveness within the community.

Proposition II

This second proposition is complementary to the first as a confirmatory exploration. If more generous welfare regimes could be linked to rules favouring the *jus sanguinis* over the *jus soli* principle, as presented in

Proposition I, then according to the findings of Chapter II, we should expect that lower levels of ethnic fragmentation would coincide with nations favouring the *jus sanguinis* principle and more de-commodifying welfare regimes; also we should expect that higher levels of ethnic fragmentation could be associated with the *just soli* principle and less de-commodifying welfare regimes. That is:

> If the more de-commodifying welfare states are associated with rules to confer citizenship that follow or favour the *jus sanguinis* over the *jus soli* principle, then we should expect that lower levels of ethnic fragmentation would be aligned to these cases.

With this two basic propositions to guide the route I can proceed to a cross-country analysis that would confirm or reject the hypothesis offered in this third chapter.

Section II.

A cross-country analysis of principles to confer citizenship

Data gathering

One of the most important questions in a cross-country analysis is the selection of countries. As previously noted, this thesis does not intend to be a study of the nationality laws of different nations; therefore a rigorous global sample of nationality laws is beyond the scope of this research. Additionally, a very wide sample to compare welfare regimes, principles to confer citizenship and ethnic fragmentation would open the debate about the classifications of welfare regimes for every country, which by itself constitutes a whole field of study and research.

In order to prevent such problems and, simultaneously, offer a rigorous sample to test the hypothesis developed in the previous section, I propose to use precisely the sample of 18 countries that Esping-Andersen firstly used to

develop his typology of welfare regimes (Esping-Andersen, 1990:52). This sample has been the subject of rigorous research and study; in fact there is abundant literature replicating its findings and methods (Scruggs & Allan, 2006). Furthermore, as presented in Chapter II when discussing the pertinence of a sample restricted only to OECD countries, this sample of 18 nations selected by Esping-Andersen, provides key analytical advantages as a comparable set of electoral democracies that subscribe to free-market policies, and commitment to civil rights, and also present a significant range of different levels of income and development.

Considering that the data presented in *The Three Worlds of Welfare Capitalism* is from observations circa 1980, in order to make a fair comparison, I used data from approximately the same date for the other variables. In the case of ethnic fragmentation, I used data that corresponds to a period from 1985 to 2000, as it is a very stable variable over the long term [24].

Regarding the main principle each nation uses to confer citizenship, I identified the effective date of the respective nationality law to secure that all of them correspond to the principle enforced *circa* 1980-1985[25].

Data for Esping-Andersen's *welfare state de-commodification index*, principles to confer citizenship, and the level of ethnic fragmentation are shown in Table 3.1. It is important to note that countries are presented in the three clusters of welfare regimes that Esping-Andersen suggested in 1990, for an easier and more intuitive interpretation of any finding.

[24] See Methodological Appendix 1.
[25] See Methodological Appendix 7.

Table 3.1 Citizenship at Birth, Welfare Regimes and Ethnic Fragmentation

Country	De-commodification Score of the Welfare Regime [a]	Main Principle to Confer Citizenship at Birth effective *circa* 1980-1985 [b]	Level of Ethnic Fragmentation [c]
Sweden	39.1	Jus sanguinis	.06
Norway	38.3	Jus sanguinis	.05
Denmark	38.1	Jus sanguinis	.08
Belgium	32.4	Jus sanguinis	.55
Netherlands	32.4	Jus sanguinis	.10
Austria	31.1	Jus sanguinis	.10
Switzerland	29.8	Jus sanguinis	.53
Finland	29.2	Jus sanguinis	.13
Germany	27.7	Jus sanguinis	.16
France	27.5	Jus soli / Jus sanguinis	.10
Japan	27.1	Jus sanguinis	.01
Italy	24.1	Jus soli / Jus sanguinis	.11
United Kingdom	23.4	Jus soli / Jus sanguinis	.12
Ireland	23.3	Jus soli	.12
Canada	22.0	Jus soli	.71
New Zealand	17.1	Jus soli	.39
United States	13.8	Jus soli	.49
Australia	13.0	Jus soli	.09

a. See Esping Andersen, 1990:52.
b. Center for Immigration Studies, www.cis.org, see Methodological Appendix 7.
c. See Alesina *et al*., 2002, Methodological Appendix 1.

Discussion of findings

Data displayed in Table 3.1 seems to confirm *Proposition I*. The three clusters of welfare regimes seem to follow distinct principles to confer citizenship. Even more important, the more de-commodifying welfare regimes are clearly associated with the *jus sanguinis* principle, and the less de-commodifying regimes with the *jus soli* rule, with the Continental models following a mixture of both principles. If societies, as suggested in Chapters I and II, find it easier to conduct social redistribution where collective identities are stronger, it seems that they also tend to establish ethno-cultural requirements to allocate citizenship when the welfare provided is more generous that when it is more restricted.

The cluster of liberal welfare regimes clearly favours the *jus soli* principle, and even within this cluster, we can find the same tendency described above of increasing requirements of individual integration to the community or some level of previous membership prior to conferring of citizenship. The United States, at the bottom of the de-commodification index, favours a plain and straight *jus soli* rule, requiring only that a person be born within the borders of the country to be a citizen regardless of the immigration status of his/ her parents.

In the United Kingdom, within the same cluster of liberal regimes but with a higher level of welfare provision, it is necessary for a person to be born within the borders of the country, but also, it is required that she/he has to have at least a parent that had settled within the boundaries of the United Kingdom.

On the other hand, if a child is born outside the UK's borders, British citizenship can only be acquired by descent (a *jus sanguinis* principle) when a parent is a British citizen, and that parent did not acquire that citizenship by descent, establishing a clear limit on the reach of an inherited citizenship status.

The same tendencies of an increased welfare provision, followed by additional requirements of cultural or ethnic belonging to confer citizenship are also present in the six Continental welfare regimes displayed in Table 3.1. Children born in France to at least one parent, who was also born in France, automatically acquire French citizenship at birth; a *jus soli* principle with and extra requirement when compared with the nationality rules applied by the Liberal welfare regimes analysed here. Also, a child born in France to foreign parents may acquire French citizenship only after some minimum residency requirements at a set age.

However, an even greater contrast with the Liberal welfare states and their *jus soli* principles emerges in the case of the more generous German welfare state provision. Germany ties citizenship to a principle of *jus sanguinis.* German citizenship at birth can only be obtained if a parent is a German citizen, irrespective of his/her place of birth. At this point is also worth noting a unique characteristic of the German nationality law that gives us a glimpse of a plausible relationship between the rules of the welfare state, the labour market in Germany, and the principles to confer citizenship. Prior to January 1975, a child born in Germany could normally only receive German citizenship from the father and not the mother. This is a very interesting feature given the nature of the German welfare regime that intrinsically links participation in the labour market to any right to be recipient of social policy, in a scenario in the 70's where men were normally the breadwinners.

Finally, in reference to the welfare regimes belonging the Beveridge ideal, the six countries displayed in the top cluster of Table 3.1 and considered in Esping-Andersen typology, followed, as expected from Proposition I, the *jus sanguinis* principle. Nonetheless, the level of provision of welfare seemed to coincide again with some national differences in the nationality laws. Austria, at the bottom of this group, follows a *jus sanguinis* principle as expected, but a child born in Austria to foreign parents may enjoy a reduction in the residence requirement for naturalisation as an Austrian citizen, a very subtle but clear *jus soli* consideration.

In the other extreme of this cluster, Norway and Sweden follow a strict *jus sanguinis* principle, and rigid rules of cultural integration and knowledge of the national culture and language prior to any process to acquire citizenship.

However, the most important aspect to highlight for this nations, is the relative easiness in which citizens from the *Nordic Council*, this is Denmark, Finland, Iceland, Norway and Sweden, can obtain citizen status within this group of nations by merely been domiciled in the country. This characteristic feature

could reflect notions that all this nationalities belong to a same ethno-cultural tradition, and the acceptance of nationals from within the *Nordic Council* does not imply a weakening of the community and its traditional characteristics.

At this point, it is possible to suggest that there is enough evidence from this 18 countries sample to propose a probable link between the welfare regime and the principles that confer citizenship/nationality. Notwithstanding, it is still not possible to establish a direction for a causal relationship, just the existence of a probable relationship that has been partially documented. The next step, according to *Proposition II*, is to analyse the existence of any association between ethnic fragmentation and the *jus soli* or *jus sanguinis* principles enforced by these nations.

Again Table 3.1 offers an interesting result. In general, the *jus soli* principle and the less de-commodifying welfare regimes are aligned with higher levels of ethnic fragmentation, and vice versa. The obvious exceptions are Australia, Belgium, Switzerland and Japan.

In the case of Australia, I can say that the rightful score and place of this country in the *welfare state de-commodification index* has been widely disputed. Some authors (Castles & Mitchell, 1993; Scruggs & Allan, 2006; Arts & Gelissen, 2002) have suggested that Esping-Andersen underestimated the provision of welfare in Australia, specifically for unemployment and sickness. In fact Scruggs & Allan (2006) suggest that Australia belongs to some place in the middle of the table of the 18 welfare states that Esping-Andersen presented.

Belgium, can be explained by the bi-national composition of the country, that also generates a very high value for the fragmentation index when computing to groups that share the population in almost equal parts (see Methodological Appendix 1). But even in Belgium, with the long and stable accommodation of two national groups, the last years have witnessed a political, economic and

attitude division rising between the French and Flemish communities that may lead to some overhauling and rethinking of the welfare regime (*The Economist*, 2010). However, the Japanese case, together with the Korean case referred in the Preface and Chapter II deserve a more detailed discussion. These two countries seem to contradict some key findings of this research, because two almost perfectly ethnic homogenous countries display two key characteristics: i) they do not have a generous welfare regime, and ii) they keep a strict *jus sanguinis* requirement to confer citizenship. To explain these findings, I refer to an intrinsic pro-market ideology of individual responsibility that seriously constrains any ideology or policy for social redistribution, dominant in these nations.

However, these cases can be better explained within the boundaries of this thesis if we introduce the idea of a "fourth welfare regime" proposed by Wood & Gough (2006). In this fourth welfare regime, namely a *productivist welfare regime* (Wood & Gough, 2006:1706), the public provision of welfare alone does not have a strong de-commodifying effect; this effect is achieved by the complementary and sometimes dominant component of welfare constituted by strong families, household strategies of investment in education, basic health and enterprise welfare. If we include the basic reasoning of this fourth welfare regime, then we can explain not only the Japanese case, but also the Korean and the Taiwanese cases that have constituted outliers to the hypothesis guiding this research or previous developments of the political economy literature. Now I can suggest that these East Asia societies that have high ethnic homogeneity are in fact making a strong expenditure in welfare, just as predicted by the theoretical model; but this expenditure is not accounted for in the public expenditure alone, it is necessary to include other functional alternatives of welfare strongly developed in these nations (Gough, 1999:102). This new approach and category of welfare regime represents a central element that gives additional coherence to the empirical evidence displayed in this and the previous chapter.

Summary

The analysis presented in this section is clearly an exploratory analysis. While some interesting associations are highlighted, it is not possible to establish a causal relationship or a direction of probable causality for the variables. However, the questions and possible answers that could be drawn from the data and the theoretical references offered, may signal the existence of a probable relationship between the characteristic of the welfare regime, their rules to confer citizenship and ethnic fragmentation, that could follow the same path set by Chapters I and II.

If membership/citizenship is the key factor to distribute/allocate in a given community/country before making any social redistribution possible, this section has offered evidence to make worth exploring the hypothesis that countries that offer a more generous welfare provision, seem also to enforce principles to confer full membership that favour ethno-cultural requirements/barriers to define *who is in* and *who is out* of the bounded community that an independent country constitutes.

Additionally, if a shared sense of identity and purpose is what binds people to any given independent country, then it could be true that countries with high levels of ethnic fragmentation or no clear identification with a kingship tradition, will opt for policies of assimilation and the creation of a modern national consciousness which awake people to a sense of common belonging (Shafir, 1998:16); while countries with highly homogenous ethno-cultural traditions will opt for the keeping of that situation favouring a conferring of citizenship by descent and blood heritage. Accordingly, each of these two scenarios will present a different response to the rise of ethnic fragmentation as a factor that could shape the welfare state's development.

Finally, following this thesis's proposition that any expansion of the social rights will require an effort to strengthen the idea of a national sense of community (Miller, 1992), it is worth noting, as an intuitive postscript, that the very recent Health Care Reform in the United States was almost immediately followed by a call from President Barack Obama,[26] for comprehensive immigration reform because "citizenship to this country [US] comes not only with rights but also with certain fundamental responsibilities… pay taxes, pay a fine, and learn English".

It is very interesting that a health care reform that will make its benefits almost universal and obviously increase the degree of de-commodification that the United States' welfare regime offers to its citizens, came paired with an immediate call to remember that "being an American is not a matter of blood or birth. It's a matter of faith. It's a matter of fidelity to the shared values that we all hold so dear". With all this in mind I shall proceed to the conclusion chapter of this thesis.

[26] Remarks by President Barack Obama on Comprehensive Immigration Reform, at the *American University School of International Service*, Washington D.C., July the 1st, 2010.

Chapter Four
Conclusions

This thesis's central aim was to present ethnic fragmentation as a relevant factor to be considered and included among the causal elements behind the welfare state's development and its defining characteristics.

In order to accomplish this aim, it was crucial to construct a theoretical framework that allowed a solid explanation of how ethnic fragmentation impacts on the welfare state. Therefore, it was not enough to merely document a causal link between ethnic fragmentation and different aspects of social expenditure, something that the political economy literature has partially already done. The central task was to determine which key and underlying variables that enable and shape the policies and institutions of social redistribution, may suffer from the effects of ethnic fragmentation and, as a result, alter the shape of social policy across different independent countries.

Equally important to our aim was that any theoretical mechanism proposed to explain how the effects of ethnic fragmentation are channelled towards the pillars that sustain the welfare state had to be clearly and strictly anchored to the social policy literature and its hypotheses, and not based simply on the posing of questions and the use of debates borrowed from the political economy field.

Finally, all theoretical propositions had to be tested using clear quantitative statistical analysis to show first, their empirical pertinence, and second and most important, the fact that all results are supported by very straightforward methods, easy to replicate, and subject to critical evaluation.

Accordingly, in the following pages I will explain how all research challenges mentioned above were (or not) met, and summarize and discuss the logic of all findings, their strengths and limitations, and finally how they represent an original contribution to the social policy field.

Is there a phenomenon worth studying?

As presented and discussed at length in Chapters I and II, the political economy literature has provided evidence on the effects of ethnic fragmentation on two basic areas: i) economic growth, and ii) the quality of institutions and policy. It confirms a negative effect of ethnic fragmentation on economic growth, quality of government and overall provision of public goods and services.

The social policy field has not tackled this question directly, although some authors, especially Kymlicka and Banting (2006) have explored if multiculturalism policies erode welfare state performance and support for social policies in place. However, let me reiterate, for the purposes of this thesis the key question is not about the performance of the multicultural welfare state and its effectiveness to reduce poverty and inequality, but about whether greater ethnic fragmentation could lead to a reduction of the resources that a society is able to put together for redistribution, and an erosion of the sociological and political conditions that social policy theory postulates as the factors that explain the rise and strength of the welfare state.

Therefore, the first step was to analyse if ethnic fragmentation can be effectively identified as a causal variable to explain changes in the level of social expenditure across a sample of 156 independent countries; a very straightforward test that has not been previously conducted in a rigorous search for this relationship, and across a sample as wide as the one presented here. Also, another very important step taken was to use a fixed set of variables for the analysis, considering that some previous studies exploring the

effects of ethnic fragmentation have used an almost *ad hoc* sets of variables, adding or excluding control variables without any theoretical reference. If ethnic fragmentation could be identified as a relevant and significant variable explaining social expenditure, its statistical analysis should de conducted together with other control variables that directly compete as explanatory factors, and that are also clearly derived from social policy theory.

Specifically, the first exploratory analysis of any causal relation between ethnic fragmentation and social expenditure was conducted after taking into account the factors that social policy postulates as essential to the rise of the modern social policies: i) industrialisation and mass democracy (Pierson, 1991), ii) sustained economic growth (Korpi, 1983; Flora & Heidenheimer, 1981), iii) economic stability and the conditions for class mobilisation (Esping-Andersen, 1990).

After a careful construction of this thesis first econometric test using an OLS model and after controlling for the social policy variables described above, ethnic fragmentation appears as a strongly significant variable with a clear negative relationship with government expenditure and, more important, with social expenditure. The results kept their tendency and statistical significance for other confirmatory analysis using robust standard errors and seemingly unrelated regressions systems, SUR.

It is also quite relevant to report that ethnic fragmentation kept its statistical significance and expected negative relationship with government and social expenditure, when all other control variables also reported statistical significance. Such a finding was also present when the cross-national sample was restricted only to OECD countries, which constitute a very robust sample to test subtle changes in the impact of variables, something that was discussed in Chapters II and III.

Hence, it is possible to say that an important contribution of this thesis to the social policy literature could be defined as the development of a fixed model of causal variables that includes ethnic fragmentation, which is clearly derived from the social theory, and is able to explain with reasonable robustness (R^2 .53) changes in social expenditure using the widest sample of countries available, together with clear and simple methods of data gathering and statistical analysis.

For the purpose of this thesis, it is also essential that the construction of variables and the aggregation of data be clearly described. Cross-national data for long periods and a large number of countries are generally far from ideal, with serious gaps, and problems regarding the comparableness of indicators.

However, by offering a description of how each indictor was constructed, as well as a detailed Appendix of all the data available, the statistical outputs and confirmatory tests, this thesis has enabled a critical evaluation of the limitation of its results.

In sum, the first statistical analysis conducted in Chapter II, Section I, provided enough evidence to postulate that there is a significant and negative relationship between ethnic fragmentation and social expenditure across different independent countries. Accordingly, it can be affirmed that there is a phenomenon that is effectively occurring, that is worth studying, and that requires to be explained, this time from the social policy literature's point of view. That latter task has been the core of this thesis.

How does it happen?

How could we explain the significant and negative causal impact of ethnic fragmentation on social expenditure? How could a long-term demographic variable shape a social policy outcome? That is the key question that was to be addressed within the scope of the social policy literature after previously confirming that relationship.

In Chapter I, I proposed that ethnic fragmentation affects social policy and the welfare state because it has a direct impact on the major factors that shape the welfare state: social solidarity, notions of citizenship and the conditions for class mobilization. I also presented an underlying mechanism through which ethnic fragmentation is channelled to the pillars that support social policy.

The basic argument of this underlying mechanism, discussed at length in the theoretical framing, is as follows:

Firstly, if solidarity appears, as Durkheim and Weber suggest, because individuals share an identity as members of a collective group and believe that all of them share a common fate, then ethnic fragmentation places an additional stress on the development of such a shared identity and capacity for imaging the situation of others (Habermas, 1995).

Secondly, once solidarity is in place, ethnic fragmentation also constitutes a complex factor to be accommodated in the development of a set of common values and common ground that makes effective citizenship possible. Here, I propose that ethnic fragmentation is linked to the welfare state by generating what Bryan Barry (2001) has called a *diverting* effect, a *contrasting* effect and a *misdiagnosis* effect that shapes social and political mobilization.

Ethnic fragmentation would impact on the welfare state by diverting social energy from issues of economic redistributions to issues of recognition; also, ethnic fragmentation could generate a contrasting effect that shifts group loyalty from class membership or trade union membership to emphasize differences such as ethnicity or religious belonging. Finally, if the diverting and contrasting effects actually occur, we will have a misdiagnosis effect where groups will misdiagnose the importance of economic redistribution and choose recognition polices as the best way to advance the wellbeing of citizens.

In sum, according to the proposed mechanism, ethnic fragmentation will impact on social expenditure by adding an extra dimension to the complexities of empathy for other members of the community; also it will make it harder to create a set of values that shape a shared national identity. Ultimately, by putting the emphasis on policies of recognition and differentiation, rather than policies of redistribution and common membership, ethnic fragmentation will complicate the class and political mobilisation that gave birth and continue to sustain the modern welfare state. With this mechanism, directly derived from the social policy literature, I propose to explain not only whether ethnic fragmentation affects social expenditure, but to explain how it happens.

To explore the pertinence of this underlying mechanism, a series of statistical analyses was conducted in Chapter II. To test for ethnic fragmentation and its expected negative relationship with the rise of social solidarity, I used Stjerno's very straightforward definition of solidarity as "preparedness to share resources with others by personal contribution to those in struggle or in need and through taxation and redistribution organised by the state" (Stjerno, 2004:326). Consequently, I analysed if ethnic fragmentation can be identified as a causal variable for government revenue; considering that public revenue will be an excellent *proxy* for citizens' readiness to pay taxes and support redistributive measures. From a sample of 128 countries, I found that ethnic fragmentation is a strongly statistically significant variable to explain government revenue; such finding was also valid for a sample restricted to 30 OECD countries. These results provide strong evidence to confirm that ethnic fragmentation can be negatively associated with the readiness and preparedness of citizens to put resources in a common pool through taxes.

In the light of this key finding, I explored whether ethnic fragmentation, as predicted in the theoretical framing, is also affecting or eroding notions of social empathy and support for redistributive agendas. Using data from the *World Values Survey* for a sample of 70 countries, I found that ethnic fragmentation is negatively and significantly associated with citizens'

attitudes like concern for their fellow countrymen, and acceptance of members of a different race as neighbours. Ethnic fragmentation also reports the predicted negative link to feelings of national pride, even when it does not have a significant level.

It was stimulating to find that another measure of fragmentation, religious fragmentation, was also strongly and negatively associated with citizens' pride in their own nation, and that religious fragmentation can be also associated with attitudes that favour competition in the labour market as a way to stimulate new ideas, large salary gaps as a way to induce productivity, and -in general- a position towards the right of the political scale (see Table 2.7 in Chapter II).

Once more, ethnic fragmentation seems to fit the prediction of a factor diminishing attitudes essential for empathy among citizens. These findings also correspond with the theoretical mechanism I propose to explain the relationship between ethnic fragmentation and the welfare state.

Following these findings, I was able to conduct one of the most important empirical tests of this thesis: to explore whether ethnic fragmentation is creating the predicted *contrasting* effect. If a *contrasting* effect actually occurs, we should observe that relevant and significant variables to explain cross-national differences in the level of labour mobilisation, explicitly the number of collective labour agreements and affiliation to labour unions, are negatively associated to ethnic fragmentation. These results are very important because they would provide a direct link between ethnic fragmentation and a key factor widely accepted as essential to the development of the welfare state.

The findings presented in Chapter II (Table 2.9) confirmed the previous propositions of the theoretical framing: ethnic fragmentation, even after controlling for variables of economic development, economic stability,

electoral and political freedom, appears as a significant and negative variable to explain the total size of membership of trade unions and the number of persons covered by collective labour agreements.

At this point and due to these results, I can conclude that this research provides not only strong evidence of ethnic fragmentation as a relevant variable to explain national differences in social expenditure, but far more important, this thesis has advanced and put forward a theoretical mechanism to explain how ethnic fragmentation impacts on the foundations of the welfare state.

In the light of these findings, ethnic fragmentation seems to complicate the development of a sense of social solidarity, and could constitute a challenge to the idea of national belonging and shared identity. Additionally, there is evidence to propose that ethnic fragmentation may play a central role in creating *diverting* and *contrasting* effects that could lead to the pre-eminence of issues of cultural recognition over issues of social redistribution as the central aims of social mobilisation. These findings, and the basic structure to explain them, constitute what I consider the modest but original contribution of this thesis to the social policy literature.

Where else to look?

Membership/citizenship have been a key pair of concepts for the theoretical and empirical guidance of this thesis. Notions of nationality and citizenship are generally characterised by the idea that they establish rights and obligations for people bound together in an independent country. There is also the assumption that rights and obligations are somehow balanced: more entitlements derived from membership will be accompanied by greater responsibilities. In line with these ideas, in Chapter III, I explore whether there is evidence of a relationship or correspondence between the principles that different countries follow to confer citizenship, and the level of social welfare that these countries provide.

If the previous findings presented in this thesis are to be accepted, then we should expect to find evidence of this structural relationship between ethnic fragmentation, membership and the welfare state in other policy areas. I propose that, in general, the more de-commodifying welfare regimes will enforce the highest requirements to be accepted as a member of the polity. In terms of the issues that ethnic fragmentation may raise, no other requirement to obtain membership in a given polity will be higher than a requirement of ethnical descent.

Using the sample of 18 countries presented by Esping-Andersen (1990) to develop his typology of the three worlds of welfare, I explored whether there is evidence of the more de-commodifying welfare states being associated with the *jus sanguinis* principle to confer citizenship, that is the principle that restricts citizenship based on descent, kingship or ethno-national origins.

On the opposite side of the spectrum, I expected to find that the less de-commodifying welfare regimes would be associated with the *jus soli* principle that works on the assumption that geography and civic ties primarily define a community.

By analysing the respective nationality laws of these 18 countries, I found that there is a strong correspondence between liberal welfare regimes and the *jus soli* principle to confer citizenship. Meanwhile, the Beveridge models clearly favour the *jus sanguinis* principle to confer citizenship, and the Continental welfare regimes are in the middle, using a mixture of the *jus soli* and *jus sanguinis* principles to allocate citizenship. This demonstrates that, in general, there is a tendency of an increased welfare provision accompanied by increased requirements of cultural or ethnic belonging to confer citizenship, which in turn is also clearly linked to ethnic fragmentation.

If membership/citizenship are the key collective goods to be allocated prior to any redistributive social policy, in the 18 countries analysed we can see a clear trend where the most generous and de-commodifying welfare states are also the places where the most ethno-cultural requirements are in force for acceptance as a full member of the polity.

While the preliminary findings of Chapter III should be treated as tentative and subject of further study, they also provide an interesting glance at the structural relationship between ethnic fragmentation and the welfare state.

Under this consideration, if ethnic fragmentation channels its effects on the welfare state by shaping the strength of social solidarity, attitudes of the citizenry and the condition of social mobilization, we should expect that ethnic fragmentation also spreads its effects to other areas of policy making.

A logical candidate of policy making closely related to the inner workings of the community, is the procedure to decide *who is included* and *who is* excluded of the community. This is, in my perspective, an original finding of this thesis that could help to solve the research puzzle of ethnic fragmentation and its relationship with the welfare state.

Ethnic fragmentation and the welfare state in a multicultural world

This thesis is not presented in a vacuum, and I am truly aware of the implications that a wrong interpretation of its findings could have in an increasingly multicultural world that also faces a post 9/11 scenario.

The hypothesis and empirical evidence that ethnic fragmentation is a significant explanatory variable for lower levels of social expenditure, and that it erodes social solidarity, complicates the development of a common identity and shifts the focus of social mobilisation from redistribution towards recognition, have to be clearly defined.

I argue that the universal subscription of the most basic principles of human rights and tolerance require a common understanding that if ethnic fragmentation constitutes a challenge to the development of the welfare state and its pillars, then ethnic fragmentation has to be interpreted in a completely neutral way. It is unacceptable that the findings presented in this thesis may constitute an excuse for intolerance or bigotry.

The fact that ethnic fragmentation has a negative relationship with social expenditure has to be seen as an important call to consider this variable when designing new social policy or overhauling a welfare regime. It constitutes an opportunity to put more emphasis on the development of common identities and shared values that sustain the welfare state, because in some scenarios of high ethnic fragmentation they will automatically emerge. This thesis and its research questions have explored the effects of ethnic fragmentation as a variable that should not be forgotten or overseen when developing collective social rights that have to be accompanied by collective responsibilities of participation and reciprocity.

In the end, the effect of ethnic fragmentation on social policy can be clearly included within the realm of a major trade-off that the welfare state has always faced: a complicated need to accommodate the forces of individual freedom and collective equality within a community. While equality will always require a centripetal tendency of contribution and conformity with the definition of a common good in order to draw cultural and community boundaries, individual freedom will always constitute a centrifugal force that crosses such borders. In that landscape, the effects of ethnic fragmentation on the welfare state will constitute another factor added to a complicated equilibrium.

In that sense, I suggest that ethnic fragmentation and the challenges of multiculturalism do not constitute an entirely new area of debate for social policy, but only a new refinement in the precision of the variables to be

included in a much wider debate about the optimum design of social policy. Additionally, I cannot underestimate the relevance of the literature on social differentiation and integration (Gough & Olfosson, 1999) and its derived development of new categories of welfare regimes to enhance and give more robustness to this thesis's findings. I argue that such a field of study could be crucial to future research and refinements of the effects of ethnic fragmentation on the welfare estate.

The findings of this thesis should lead to optimism. Having a better understanding of the effects and implications of ethnic fragmentation on social policy does not have to lead to the erosion of the welfare state. On the contrary, taking ethnic fragmentation as a relevant variable will enable policy makers to design more robust policies that can lead to the development of a new and better generation of welfare programs. If ethnic fragmentation complicates the creation of collective identities and the rise of solidarity, that does not mean that collective identities and social solidarity in an increasing multicultural world would enter a period of crisis, it only means that new and better ways to enhance collective identities, sense of belonging and projects on the meaning of good societies will have to be developed by the social policy literature.

If we humans have a natural taste for sharing, but we like sharing firstly among ourselves, the relevance of ethnic fragmentation as a factor shaping the notions of community and solidarity is essential to the understanding of what *ourselves* means in every polity, on how we can interact with such *ourselves* to better serve the collective and individual well being.

In sum, the confirmation of ethnic fragmentation as a variable that explains, even marginally, the development of the welfare state is not a pessimistic result about the limitations of social interaction, it is just new information to bring to bear on the development of a better, more comprehensive and sustainable social policy.

*** * ***

References

Aghion, P., Alesina, A. and Trebbi, F. (2002) "Endogenous Political Institutions", *mimeo,* Harvard University.

Alesina, A. (1994) "Political Models of Macroeconomic Policy and Fiscal Reforms", in Haggard, S. and Webb, S., eds., *Voting for Reform: Democracy, Political Liberalisation, and Economic Adjustment*, New York, OUP.

Alesina, A., Baqir, R. and Easterly, W. (1999) "Public Goods and Ethnic Divisions", *Quarterly Journal of Economics*, 114, 4: 1243-1284.

Alesina, A., Easterly, W., Devleeschauwer, A., et al. (2002) "Fractionalization", *National Bureau of Economic Research,* Working Paper, 9411.

Alesina, A. and Glaeser E., eds., (2004) *Fighting Poverty in the US and Europe: A World of Difference*, Oxford, OUP.

Alesina, A. and La Ferrara, E. (2000) "Participation in Heterogeneous Communities", *Quarterly Journal of Economics*, 115: 847-904.

Annett, A. (2001) "Social Fractionalization, Political Instability, and the Size of Government", *IMF Staff Papers,* 48, 3:561-592.

Arts, W. & Gelissen, J. (2002) "Three Worlds of Welfare Capitalism or More", *Journal of European Social Policy*, 12, 2:137-158.

Axelrod, R. (1984) *The Evolution of Cooperation,* New York, Harper Collins.

Banting, K, and Kymlicka, W. (forthcoming) "Do Multiculturalism policies erode the Welfare State", *mimeo*, Queen's University.

Banting, K. and Kymlicka, W., eds., (2006) *Multiculturalism and The Welfare State, Recognition and Redistribution in Contemporary Democracies,* Oxford, OUP.

Barro, J. R: (1997) *Determinants of Economic Growth: A Cross-Country Empirical Study*, Massachusetts, MIT Press.

Barry, B. (2001) *Culture and Equality*, Massachusetts, Harvard University Press.

Becker, G. (1957) *The Economics of Discrimination*, Chicago, University of Chicago Press.

Bridgman, B. (2007) "Why are ethnically divided countries poor?", *Journal of Macroeconomics*, 30:1-18.

Brubaker, R. (1989) "Citizenship and Naturalization: Policies and Politics" in Brubaker, R. ed. (1989), *Immigration and the Politics of Citizenship in Europe and North America*, University Press of America.

Brubaker, R. (1998) "Immigration, Citizenship, and the Nation-State in France and Germany, in Shafir, G., ed., (1998) *The Citizenship Debates*, Minneapolis, Minnesota University Press.

Burgess, R. and Stern, N. (1993) "Taxation and Development", *Journal of Economics Literature*, 31:762-830.

Castles, F. & Mitchell, D. (1993) "Three Worlds of Welfare Capitalism or Four" in Castles, F. ed. *Families of Nations*, Brookfield, Dartmouth.

Carrillo, U. (2003) "Ethnic Fragmentation and the Provision of State Welfare: An exploratory analysis of cross-national, national and local evidence", *mimeo, MSc Dissertation*, Oxford.

CIA (2004) *CIA World Fact Book*, available in an electronic version at http://www.cia.gov/cia/publications/factbook/index.html

Clasen, J. (1999) *Comparative Social Policy. Concepts, Theories and Methods*, Oxford, Blackwell.

Collier, P. (2001) "Ethnic Diversity: An Economic Analysis", *Economic Policy*, 32:127-166.

Collier, P., Honohan, P., and Ove Moene, K. (2001) "Implications of Ethnic Diversity", *Economic Policy*, 16, 32:129-166.

Crepaz, M. (1998) "Inclusion versus Exclusion: Political Institutions and Welfare Expenditures", *Comparative Politics*, 31:61-80.

Dagger, R. (1997) *Civic Virtues. Rights, Citizenship and Republican Liberalism*, Oxford, OUP.

Dahl, R. (1982) *Dilemmas of Pluralist Democracies*, New Haven, Yale University Press.

Dahl, R. (1989) *Democracy and its Critics*, New Haven, Yale University Press.

Dreyer, D. (2003) "Ethnic Divisions and the Size of the Informal Sector", *mimeo, Economic Policy Research Unit* and the University of Copenhagen.

Duffy, B. (2004) *Free Rider Phobia*, available in an electronic version at http://www.mori.com/polls/2003/community.shtml

Durkheim, E. (1984) *The Division of Labor in Society*, New York, The Free Press.

Dworkin, R. (1983) "In Defense of Equality", *Social Philosophy and Policy*, 1:24-40.

Dworkin, R. (2002) *Sovereign Virtue. The Theory and Practice of Equality*, Massachusetts, Harvard University Press.

Easterly, W. (1999) "Life During Growth", *Journal of Economic Growth*, 4:239-276.

Easterly, W. and Levine, R. (1997) "Africa's Growth Tragedy: Policies and Ethnic Divisions", *Quarterly Journal of Economics*, 111, 4:1203-1250.

Esping-Andersen, G. (1990) *The Three Worlds of Welfare Capitalism*, Oxford, Polity.

Esping-Andersen, G., Gallie, D., et.al. (2002) *Why We Need a New Welfare State*, Oxford, OUP.

Flora, P. & Heidenheimer, A. (1981) *The Development of Welfare States in Europe and America*, New Brunswick, Transaction Inc.

Frazer, E. (1999) *The Problems of Communitarian Politics: Unity and Conflict*, Oxford, OUP.

Gelissen, J. (2000) "Popular support for institutionalised solidarity: a comparison between European welfare states", *International Journal of Welfare State*, 9, 4:285-300.

Greene, W. (1998) *Econometric Analysis*, USA, Prentice Hall

Goodhart, D. (2004) "Too Diverse?", *Prospect*, February:30-37.

Gough, I. & Olofsson, G., ed. (1999) *Capitalism and Social Cohesion: Essays on Exclusion and Integration*, New York, Palgrave.

Gough, I. (1999) "Social Welfare and Competitiveness: Social versus System Integration", in Gough, I. & Olofsson, G., ed. (1999) *Capitalism and Social Cohesion: Essays on Exclusion and Integration*, New York, Palgrave.

Habermas, J. (1995) "Reconciliation through the Public use of Reason: Remarks on John Rawls's Political Liberalism", *Journal of Philosophy*, 92, 3:100-131.

Hechter, M. (1987) *Principles of Group Solidarity*, Berkeley, University of California Press.

Hicks, A. and Swank, D. (1992) "Politics, Institutions, and Welfare Spending in Industrialized Democracies, 1960-82", *The American Political Science Review*, 86, 3:658-674.

Huntington (2004) "The Hispanic Challenge", *Foreign Policy*, available at http://www.foreignpolicy.com

Inglehart, R., Basánez, M., et al., eds., (2004) *Human Beliefs and Values. A cross cultural sourcebook based on the 1999-2002 values surveys*, Mexico, Siglo XXI Editores.

King, G., Keohane, R. and Verba, S. (1994) *Designing Social Inquiry*, Princeton, Princeton University Press.

Korpi, W. (1983) *The Democratic Class Struggle*, London, Routledge and Kegan Paul

Kukathas, C. (2003) *The Liberal Archipelago: A Theory of Diversity and Freedom*, Oxford, OUP.

Kymlicka, W. and Norman, W. (2000) *Citizenship in Diverse Societies*, Oxford, OUP

Kymlicka, W. (2001) *Politics in the Vernacular. Nationalism, Multiculturalism and Citizenship*, Oxford, OUP.

Kymlicka, W. (2002) *Contemporary Political Philosophy. An Introduction*, Oxford, OUP.

Laden, A. and Owen, D. (2007) *Multiculturalism and Political Theory*, Cambridge, Cambridge University Press.

Landman, T. (2000) *Issues and Methods in Comparative Politics: An Introduction*, London, Routledge.

La Porta, R. et al. (1999) "The Quality of Government", *Journal of Law, Economics and Organization*, 5,1:222-279.

Lawrence, S. and Ishikawa, J. (2005) "Social Dialogue Indicators, Trade Union Membership and Collective Bargaining Coverage: Statistical Concepts, Methods and Findings", *International Labour Office, Working Paper 59*.

Lewis, J. (2001) *Pictures of Welfare: An Inaugural Lecture Delivered Before the University of Oxford*, Oxford, OUP.

Lichbach, M. (1989) "An Evaluation of 'Does Economic Inequality Breed Political Conflict' Studies", *World Politics*, 41:431-470.

Lijphart, A. and Crepaz, M. (1995) "Linking and Integrating Corporatism and Consensus Democracy: Theory, Concepts and Evidence", *British Journal of Political Science*, 25, 2, 281-288.

Lijphart, A. (1999) *Patterns of Democracy: Governments Forms and Performance in Thirty-Six Countries*, New Haven, Yale University Press.

Lomasky, L. (1987) *Persons, Rights, and the Moral Community*, Oxford, OUP.

Luttmer, E. (2001) "Group Loyalty and the Taste for Redistribution", *Journal of Political Economy*, 109, 3:500-529.

Marshall, T. (1950) "Citizenship and Social Class and Other Essays", Cambridge, CUP, edited version in Pierson, C. and Castles, F., eds., (2000) *The Welfare Reader*, Oxford, Polity Press.

Mauro, P. (1995) “Corruption and Growth”, *Quarterly Journal of Economics*, 110:681-712.

McGillivray, M. (1991) "The human development index: Yet another redundant composite development indicator?”, *World Development*, 19, 10:1461-1468.

Miklukho-Maklai Ethnological Institute (1964) *Atlas Narodov Mira*, *Moscow*, Department of Geodesy and Cartography of the State Geological Committee of the Soviet Union.

Miller, D. (1992) “Nationality”, in Avineri, S. and De-Shalit, A., eds., *Communitarianism and Individualism*, Oxford, OUP.

Miller, D. (1999) *On Nationality*, Oxford, Clarendon Press.

Noorbakhsh, F. (1998) "The human development index: some technical issues and alternative indices", *Journal of International Development*, 10, 5:589-605.

Nozick, R. (1974) *Anarchy, State, and Utopia*, Basic Books, New York.

OECD (2001) *Social Expenditure Database: 1980/1998*, available in an electronic version at http://www.oecd.org/statsportal

OECD (2005) *OECD Factbook. Economic, Enviromental and Social Statistics*, available in an electronic version at http://www.sourceoecd.org/factbook)

Offe, C. (1984) *Contradictions of the Welfare State*, London, Hutchinson.

Olson, M. (1965) *The Logic of Collective Action*, London, Harvard University Press.

Orloff, A. and Skocpol, T. (1984) “Why Not Equal Protection? Explaining the Politics of Public Social Spending in Britain 1900-1911, and the United States, 1880s-1920” *American Sociological Review*, 49 ,4:726-750.

Parsons, T. (1951) *The Social System*, Glencoe, The Free Press of Glencoe

Pierson, C. and Castles, F. (2000) *The Welfare Reader*, Oxford, Oxford, Polity Press.

Pierson, P. (1991) *Beyond the Welfare State?*, Oxford, Polity Press.

Powell, G. (1982) *Contemporary Democracies: Participation, Stability and Violence, Cambridge*, Harvard University Press.

Putman R. (2004) *Democracies in Flux*, Oxford, OUP

Rawls, J. (1988) “The Priority of Right and Ideas of the Good”, *Philosophy and Public Affairs*, 14, 3:223-51.

Sala-i-Martin, X. (1997) “I Just Ran Four Million Regressions”, NBER, Working Paper 6252.

Sagar, A. & Najam, A. (1998) “The Human Development Index: A Critical Review”, *Ecological Economics*, 25:249-264.

Sandel, M. (1984) “Justice and the Good”, in Sandel, M., ed., *Liberalism and Its Critics*, New York, New York University Press.

Scruggs, L. & Allan, J. (2006) “Welfare-state decommodification in 18 OECD countries: a replication and revision”, Journal of European Social Policy, Vol. 16 (1):55-72.

Seber, G. (2003) *Linear Regression Analysis* (Wiley Series in Probability and Statistics), USA, Wiley.

Shafir, G., ed., (1998) *The Citizenship Debates*, Minneapolis, Minnesota University Press.

Skocpol, T. (1979) *States and Social Revolutions: A Comparative analysis of France, Russia and China*, Cambridge, CUP.

Skocpol, T. (2004). “Civic transformation and inequality in the contemporary United States”, in Neckerman, K., ed., *Social inequality*, New York, Russell Sage Foundation.

Skocpol, T. and Amenta, E. (1986) “States and Social Policies.” *Annual Review of Sociology*, 12: 131-157.

Slemrod, J. (1998) “On Voluntary Compliance, Voluntary Taxes, and Social Capital”, *National Tax Journal*, 51:485-91.

Sternjo, S. (2005) *Solidarity in Europe. The History of an Idea*, Cambridge, Cambridge University Press.

United Nations Development Program (2008) *The Human Development Report 2007/2008: Fighting Climate Change: Human Solidarity in a Divided World*, Geneva, United Nations Development Program.

Walby, S. (1999) “The New Regulatory State: The Social Powers of the European Union”, *British Journal of Sociology*, 50:118-140.

Walzer, M. (1983) *Spheres of Justice: A Defence of Pluralism and Equality*, Blackwell, Oxford.

Walzer, M. (1987) *Interpretation and Social Criticism*, Massachussets, Harvard University Press

Walzer, M. (1990) “The communitarian Critique of Liberalism”, *Political Theory*, 18, 1: 6-23

Walzer, M. (1992) “Membership”, in Avineri, S. and De-Shalit, A., eds., *Communitarianism and Individualism*, Oxford, OUP.

Ward, C. (1991) “The Limits of Liberal Republicanism: Why Group-based Remedies and Republican Citizenship Don’t Mix”, *Columbia Law Review*, 91, 3: 581-607.

Weber, M. (ed.1978) *Economy and Society. An outline of Interpretive Sociology*, Berkeley, University of California Press.

White, S. (2000) “Social Rights and the Social Contract –Political Theory and the New Welfare Politics”, *British Journal of Political Science*, 30: 507-532.

White, S. (2003) *The Civic Minimum. On the Rights and Obligations of Economic Citizenship*, Oxford, OUP.

Wilensky, H. (1975) *The Welfare State and Equality*, Berkeley, University of California Press.

Wolfe, A. and Klausen, J. (2000) “Other Peoples”, *Prospect*, December: 28-33.

Wood, G. and Gough I. (2006) “A Comparative Welfare Regime Approach to Global Social Policy”, *World Development*, 34,10: 1606-1712.

World Bank (2008) *World Development Indicators 2008*, available in an electronic version at http://publications.worldbank.org/WDI/

Yashar, D. (2005) *Contesting Citizenship in Latin America: The Rise of Indigenous Movements and the Post Liberal Change*, Cambridge, Cambridge University Press.

Methodological Appendixes

Appendix 1. The Ethnic Fragmentation Index

The traditional measure of ethnic fragmentation is given by the probability that two randomly drawn individuals from the population belong to two different ethnic groups. The theoretical maximum of such measure is reached when each person in the population belongs to a different group.

The index of ethnic fragmentation (EF) is computed as one minus the Herfindahl index of the ethnic group shares (Mauro, 1995; Easterly and Levine, 1997; La Porta et al., 1999; and specially Alesina et al., 2002).

$$EFj = 1 - \sum_{i=1}^{N} s_{ij}^2$$

where S_{ij} is the share of the ethnic or religious group i (i =1...N) in country j.

The most important element of the previous index is precisely the data on ethnic group shares that is used as an input; however, this data is not available for a wide sample of countries or for long periods of time.

The traditional sources of aggregate and comparable macro-data (OECD, World Bank, IMF, NBER) do not offer measures on this variable. To overcome that lack of empirical evidence, several authors (Mauro, 1995; Easterly and Levine, 1997; La Porta et al., 1999, etc.) have used the *Atlas Narodov Mira* (Miklukho-Maklai Ethnological Institute, 1964) compiled during the soviet era. This atlas has been considered a primary source for data on ethno and linguistic fractionalization. However, it has a tendency to underestimate racial differences that are not constructed along linguistic lines. Also, it is hard to analyse the effects of EF in contemporary societies using data from the 60's, especially in a period of global integration.

In an attempt to overcome such limitations, Alesina, Easterly and others (2002) developed a dataset for shares of ethnic and religious groups, which then was used to produce a new index of EF. The new measure uses data from the *Encyclopaedia Britannica* 2001, the CIA *World Fact Book* and the *Ethnologue Project*.[27] This dataset provides more updated evidence on the ethnic and religious composition of contemporary societies and is available for 201 countries. Despite its advantages, this dataset suffers two basic limitations: 1) it is a cross-sectional measure without any time series, and 2) that cross-sectional data is not referred to one year in specific, but for observations around 1990-2000. Such is the database this dissertation used, it is the best available, but it is far from ideal.

[27] The new data set and the complementary documentation are available in http://www.stanford.edu/~wacziarg/papersum.html; see also www.ethnologue.com.

Appendix 2. Variable Definitions and Technical Notes

The main datasets used for this dissertation were: 1) Alesina *et. al* (2002), 2) World Development Indicators, the World Bank, 3) The Human Development Report 2008, United Nations, 4) The OECD Factbook 2005, Organization for Economic Cooperation and Development, 5) The World Value Survey: Human Beliefs and Values, Siglo XXI Editores and 5) Lawrence and Ishikawa, 2005. Specific details about the variables used are shown.

Variable. Ethnic Fractionalization Index, circa 1990
Definition. One minus the Herfindahl Index of ethnic group shares
Source. Alesina (2002)

Variable. Religious Fractionalization, circa 1990
Definition. One minus the Herfindahl Index of religious group shares
Source. Alesina (2002)

Variable. Public Health Expenditure
Definition. % of GDP (1995 Prices), 1990-2005 Average
Source. World Development Indicators; the World Bank
Notes. Instead of 1990-2005, due to data restrictions, the window span used was 2001-2005. For Somalia, the only observation available was 2001.

Variable. Total Government Revenue
Definition. Excluding Grants, % of GDP (1995 Prices), 1990-2005 Average
Source. World Development Indicators; The World Bank
Notes. No information was available for Angola, Antigua and Barbuda, Brunei, Cape Verde, Chad, Costa Rica, Cuba, Djibouti, Dominica, Equatorial Guinea, Eritrea, Gabon, Grenada, Guinea-Bissau, Guyana, Haiti, Kiribati, Kyrgyz Republic, Lao PDR, Liberia, Malawi, Marshall Islands, Mauritania, Micronesia, Mozambique, Niger, Nigeria, Saudi Arabia, Serbia, Solomon Islands, Somalia, Suriname, Tanzania, Togo, Tonga, Turkey, Turkmenistan, Uzbekistan and Vietnam. For Albania the 1995-1998, 2002-2004 Average was used; for Argelia the 1994-2005; for Argentina the 2002-2004; for Armenia 2003-2005; for Australia the 1999-2005; for Austria the 1995-2005; for Azerbaijan the 1994-1999; for Bangladesh 2001-2005; for Barbados 2003-2004; for Belarus 1992-2005; for Belgium 1995-2005; for Benin 2001-2005, for Bolivia 2002-2005; for Bosnia and Herzegovina 2003-2005; For Botswana 2003-2005; for Brazil 1990-1996, 1997-205; for Burundi 1991-2005; for Cambodia 2002-2005; for Cameroon 1990-1995, 1998-1999; for Central African Republic 2004; for Chile 1990, 2000-2005; for Colombia 2001-2005; for Cote d'Ivoire 1994-2005; for Croatia 1991-2005; for Czech Republic 1993-2005; for Dominican Republic 2004-2005; for Ecuador 1990-1994; for El Salvador 2002-2005; for Estonia 2000-2005; for Ethiopia 2002; for Fiji 2004-2005; for Finland 1998-2005; for France 1996-2005; for Gambia 1990-1993; for Germany 1995-2005; for Ghana 1990-1993, 2002-2005; for Guinea 1998-1999; for Honduras 1996-2005; for Hungary 1996-2005; for Iceland 1998-2005; for Ireland 1995-2005; for Israel 2000-2005; for Italy1995-2005; for Jamaica 2000-2005; for Japan 1990-1993; for Kazakhstan 1997-2005; for Kenya 1991-2005; for Latvia 1994-2005; for Lebanon 2000-2005; for Lithuania 2000-2005; for Luxembourg 1999-2005' for Madagascar 2000-2005; for Mali 2000-2005; for Moldova 1995-2005; for Mongolia 2002-2005; for Morocco 2002-2005; for Netherlands 1995-2005; for New Zealand 2001-2005; for Norway 2000-2005; for Oman 1990-2000; for Panama 1990-2001; for Papua New Guinea 1990-2002; for Paraguay 2005; for Poland 2001-2005; for Portugal 1997-2005; for Qatar 2004-2005; for Romania 2002-2005; for Russia 1998-2005; for Rwanda 1990-1992; Senegal 1996-2001; for Seychelles 1993-2005; for Slovakia 2003-2005l for Slovenia 1992-2005; for South Africa 2000-2005; for Spain 1995-2005; for St. Kitts and Nevis 1990-1994; for Sudan 1998-2005; for Swazilamd2003-2005; for Sweden 1998-2005; for Switzerland 1991-2005; for Tajikstan1998-2005; for Thailand 2003-2005; for Trinidad and Tobago 2001-2005; for Uganda 1998-2005; for Ukraine 1999-2005; for United Arab Emirates 1997-2005; for United Kingdom 1998-2005; for United States 2001-2005; for Vanuatu 1995-1999; for Yemen 1990-2000; for Zambia 1990-1999, 2000-2005; for Zimbabwe 1990-1997

Variable. Public Expenditure on Education
Definition. % of GDP (1995 Prices), 1990-2005 Average
Source. World Development Indicators; the World Bank
Notes. No information was available for Antigua and Barbuda, Armenia, Bosnia and Herzegovina, Central African Republic, Congo, Dominica, Eritrea, Ghana, Honduras, Kiribati, Liberia, Micronesia, Nigeria, Papua New Guinea, Serbia, Sierra Leone, Somalia, Suriname, Turkey, and Zimbabwe. For Albania, the period used was 2002, for Algeria 1991, for Angola1998-1999, for Argentina1999-2004, for Australia2000, for Austria 1999, 2001, and 2003, for Azerbaijan 1998-2003, for Bahrain 1991, for Bangladesh 1991 and 1999-2004, for Barbados 1991 and 1999-2004, for Belarus 2004-2005, for Belgium 2003-2004, for Benin 2004, for Bhutan 2005, for Botswana 1991, for Brazil 1998-2002, for Brunei 1998-2000, for Bulgaria 2004, for Burkina Faso 2005, for Burundi 2001-2002 and 2004-2005, for Cambodia 1998-2000, for Cameroon 1999-2005, for Canada 2001, , for Cape Verde 1991, 2002 and 2004-2005, for Chad 2004-2005, for Chile 2002-2005, for China 1999, for Colombia 19991and 1998-2005, for Costa Rica 1998 and 2001-2002, for Cote d'Ivoire 1998, for Croatia 2002--2003, for Cuba 1998-2005, for Cyprus 1991and 1998-2002, for Czech Republic 1999-2005, or Denmark 1999-2005, for Djibouti 1991, for Dominican Republic 2001-2002, for Ecuador 1998-20000, for Egypt 1991 and 2003-2005, for El Salvador 1991 and 1998-2002, for Equatorial Guinea 1991 and 2001-2003, for Estonia 2000-2001, for Ethiopia 1991 and 2000-2001, for Fiji 1998-2002, for Finland 1991 and 1999-2005, for France 1999-2005, for Gabon 1999, for Gambia 1991 and 1999-2000, for Greece 1999 and 2001-2005, for Grenada 2003, for Guatemala 1991, for Guinea 1991, 1998 and 2000, for Guinea-Bissau 1999, for Guyana 1991 and 1998-2005, for Haiti 1991, for Hungary 1991 and 1999-2005, for Iceland2002-2004, for India 1991 and 2003, for Indonesia 2001-2005, for Iran 1999-2004, for Ireland1991 and 1999-2005, for Israel 1991 and 1998-2005, for Italy 1991 and 1998-2005, for Jamaica 1991 and 2000-2005, for Japan 1999-2005, for Jordan 1991 and 1999, for Kazakhstan 1991, 1999-2000 and 2004-2005, for Kenya 1991 and 2000-2005, for Korea 1991 and 2001-2005, for Kuwait 1991 and 2002-2005, for Kyrgyz 1991 and 2001, for Lao 2000-2005, for Latvia 1991 and 2002-2004, for Lebanon 1999-2002, for Lithuania 1991 and 2000-2005, for Luxembourg 1991 and 1999, for Madagascar 1998 and 2004-2005, for Malawi 1991, for Malaysia 1991 and 1999-2005, for Mali 2002-2005, for Malta 1991, 2002 and 2004, for Marshall Islands
2003, for Mauritania 1991, 1998 and 2005, for Mauritius 1991 and 1999-2005, for Mexico 1991 and 1999-2004, for Moldova 1991 and 1999-2005, for Mongolia 1991, for Morocco 1991 and 1998-2005, for Mozambique 1991, 1998 and 2004, for Myanmar 1999-2004, for Namibia 2000, for Nepal 1991 and 1999-2003, for Netherlands 1991 and 1999-2005, for New Zealand 2001-2003, for Nicaragua 1991 and 1998-2003, for Niger 1991and 2003, for Norway 1991 and 1999-2005, for Oman 1991 and 1998-2005, for Pakistan 1991, 1998 and 2004-2005, for Panama 1991 and 2001-2004, for Paraguay 1991 and 1999-2004, for Peru 1999-2004, for Philippines 1991 and 2000-2005, for Poland 1991 and 1999-2005, for Portugal 1999-2005, for Qatar 2005, for Romania 2004, for Russia 2000-2003, for Rwanda 2005, for Saudi Arabia 1991 and 1999-2004, for Senegal 1991 and 2003-2005, for Seychelles 1991 and 1998, for Singapore 1991, for Slovak Republic 1999 and 2002-2004, for Slovenia 1991 and 2000-2005, for Solomon Islands 1991, South Africa 1999-2005, for Spain 1999-2001, for Sri Lanka 1991, for St. Kitts and Nevis 1991 and 1998-2003, for Sudan 1991, for Swaziland 1991, for Sweden 1991 and 1999-2005, for Switzerland 1991, 1999-2000 and 2004, for Tajikistan 1991 , 1999 and 2002-2005, for Tanzania 1991, for Thailand 1991 and 1999-2005, for Togo 1998-2005, for Tonga 2000-2003, for Trinidad and Tobago 1991 and 1998-2001, for Tunisia 1991, for Turkmenistan 1991, for Uganda 1991 and 2004, for Ukraine 1991 and 1998-2005, for United Arab Emirates 2000-2005, for United Kingdom 2001-2005, for United States 1991 2001 and 2003-2005, for Uruguay 1991 and 2000-2005, for Uzbekistan 1991, for Vanuatu 1991 and 1998-2001, for Venezuela 1991, for Vietnam 1991, for Yemen 1991, for Zambia 1991, 1998 and 2004, for Syria 1991

Variable. Electoral Democracy Dummy
Definition. 0 if Electoral Democracy, 1 otherwise
Source. Freedom House
Notes. The data used to construct the variable was from 2005

Variable. GDP per capita growth
Definition. Annual Growth Rate, PPP, 2005 prices, USA currency, 1990-2005 Average
Source. World Development Indicators; the World Bank
Notes. For Armenia the period used was 1991-2005; for Belarus 1991-2005, for Bosnia and Herzegovina 1995-2005, for Cambodia 1994-2005, for Croatia 1991-2005, for Cuba 1995-2004, for Czech Republic1991-2005, for Djibouti 1991-2005, for Eritrea 1993-2005, for Fiji 1993-2005, for Kazakhstan 1991-2005, for Kuwait 1996-2005, Lithuania 1991-2005, for Poland 1991-2005, for Qatar 2002-2005, for Serbia 2002-2005, for Somalia 1990, for Solomon Islands 1991-2005, for Yemen Republic 1991-2005.

Variable. GDP per capita.
Definition. Gross Domestic Product per capita, Power Purchase Parity, 2005 prices, and USA currency, 1990-2005 Average
Source. World Development Indicators; the World Bank.
Notes. No information was available for Bahamas, Barbados, Cuba, Marshall Islands, Somalia, Turkmenistan and Zimbabwe. For Bosnia and Herzegovina the period used was 1994-2005, for Cambodia 1993-2005, for Eritrea 1992-2005, for Fiji 1992-2005, for Kuwait 1995-2005, for Qatar 2001-2005, for Serbia 1999-2005.

Variable. Human Development Index
Definition. Human Development Index Historical Average for 1990, 1995, 2000 and 2005
Source. World Development Indicators; The World Bank
Notes. No information on HDI was available for Kiribati, Marshall Islands, Micronesia and Somalia; therefore, no historical HDI ranking was calculated for those countries, For Serbia the only observation available was 2005

Variable. Social Expenditure for OECD Members
Definition. Public social expenditures comprises cash benefits, direct "in-kind" provision of goods and services, and tax breaks with social purposes. To be considered "social" benefits have to address one or more social goals. Benefits may be targeted at low-income households, but they may also be for the elderly, disabled, sick, unemployed or young persons. 1990-2005 Average
Source. OECD 2005 Factbook
Notes. The period used was 1990-2001, unless specified. For Hungary the period used was 1999-2001, for Slovak Republic 1995-2001, for Turkey 1990-1999.

Variable. Public Social Expenditure (Public Expend on Education + Public Expend on Health, both as a % of GFP)
Definition. % of GDP (1995 Prices), 1990-2005 Average
Source. World Development Indicators; The World Bank
Notes. No information was available for Antigua and Barbuda, Armenia, Bosnia and Herzegovina, Central African Republic, Congo, Dominica, Eritrea, Ghana, Honduras, Kiribati, Liberia, Micronesia, Nigeria, Papua New Guinea, Serbia, Sierra Leone, Somalia, Suriname, Turkey, and Zimbabwe. For Albania, the period used was 2002, for Algeria 1991, for Angola1998-1999, for Argentina1999-2004, for Australia2000, for Austria 1999, 2001, and 2003, for Azerbaijan 1998-2003, for Bahrain 1991, for Bangladesh 1991 and 1999-2004, for Barbados 1991 and 1999-2004, for Belarus 2004-2005, for Belgium 1003-2004, for Benin 2004, for Bhutan 2005, for Botswana 1991, for Brazil 1998-2002, for Brunei 1998-2000, for Bulgaria 2004, for Burkina Faso 2005, for Burundi 2001-2002 and 2004-2005, for Cambodia 1998-2000, for Cameroon 1999-2005, for Canada 2001, , for Cape Verde 1991, 2002 and 2004-2005, for Chad 2004-2005, for Chile 2002-2005, for China 1999, for Colombia 19991and 1998-2005, for Costa Rica 1998 and 2001-2002, for Cote d'Ivoire 1998, for Croatia 2002--2003, for Cuba 1998-2005, for Cyprus 1991and 1998-2002, for Czech Republic 1999-2005, or Denmark 1999-2005, for Djibouti 1991, for Dominican Republic 2001-2002, for Ecuador 1998-20000, for Egypt 1991 and 2003-2005, for El Salvador 1991 and 1998-2002, for Equatorial Guinea 1991 and 2001-2003, for Estonia 2000-2001, for Ethiopia 1991 and 2000-2001, for Fiji 1998-2002, for Finland 1991 and 1999-2005, for France 1999-2005, for Gabon 1999, for Gambia 1991 and 1999-2000, for Greece 1999 and 2001-2005, for Grenada 2003, for Guatemala 1991, for Guinea 1991, 1998 and 2000, for Guinea-Bissau 1999, for Guyana 1991 and 1998-2005, for Haiti 1991, for Hungary 1991 and 1999-2005, for Iceland2002-2004, for India 1991 and 2003, for Indonesia 2001-2005, for Iran 1999-2004, for Ireland1991 and 1999-2005, for Israel 1991 and 1998-2005, for Italy 1991 and 1998-2005, for Jamaica 1991 and 2000-2005, for Japan 1999-2005, for Jordan 1991 and 1999, for Kazakhstan 1991, 1999-2000 and 2004-2005, for Kenya 1991 and 2000-2005, for Korea 1991 and 2001-2005, for Kuwait 1991 and 2002-2005, for Kyrgyz 1991 and 2001, for Lao 2000-2005, for Latvia 1991 and 2002-2004, for Lebanon 1999-2002, for Lithuania 1991 and 2000-2005, for Luxembourg 1991 and 1999, for Madagascar 1998 and 2004-2005, for Malawi 1991, for Malaysia 1991 and 1999-2005, for Mali 2002-2005, for Malta 1991, 2002 and 2004, for Marshall Islands 2003, for Mauritania 1991, 1998 and 2005, for Mauritius 1991 and 1999-2005, for Mexico 1991 and 1999-2004, for Moldova 1991 and 1999-2005, for Mongolia 1991, for Morocco 1991 and 1998-2005, for Mozambique 1991, 1998 and 2004, for Myanmar 1999-2004, for Namibia 2000, for Nepal 1991 and 1999-2003, for Netherlands 1991 and 1999-2005, for New Zealand 2001-2003, for Nicaragua 1991 and 1998-2003, for Niger 1991and 2003, for Norway 1991 and 1999-2005, for Oman 1991 and 1998-2005, for Pakistan 1991, 1998 and 2004-2005, for Panama 1991 and 2001-2004, for Paraguay 1991 and 1999-2004, for Peru 1999-2004, for Philippines 1991 and 2000-2005, for Poland 1991 and 1999-2005, for Portugal 1999-2005, for Qatar 2005, for Romania 2004, for Russia 2000-2003, for Rwanda 2005, for Saudi Arabia 1991 and 1999-2004, for Senegal 1991 and 2003-2005, for Seychelles 1991 and 1998, for Singapore 1991, for Slovak Republic 1999 and 2002-2004, for Slovenia 1991 and 2000-2005, for Solomon Islands 1991, South Africa 1999-2005, for Spain 1999-2001, for Sri Lanka 1991, for St. Kitts and Nevis 1991 and 1998-2003, for Sudan 1991, for Swaziland 1991, for Sweden 1991 and 1999-2005, for Switzerland 1991, 1999-2000 and 2004, for Tajikistan 1991 , 1999 and 2002-2005, for Tanzania 1991, for Thailand 1991 and 1999-2005, for Togo 1998-2005, for Tonga 2000-2003, for Trinidad and Tobago 1991 and 1998-2001, for Tunisia 1991, for Turkmenistan 1991, for Uganda 1991 and 2004, for Ukraine 1991 and 1998-2005, for United Arab Emirates 2000-2005, for United Kingdom 2001-2005, for United States 1991 2001 and 2003-2005, for Uruguay 1991 and 2000-2005, for Uzbekistan 1991, for Vanuatu 1991 and 1998-2001, for Venezuela 1991, for Vietnam 1991, for Yemen 1991, for Zambia 1991, 1998 and 2004, for Syria 1991

Variable. Telephone main lines per 100 inhabitants
Definition. Telephone mainlines, per 100 inhabitants, 1990-2005 Average
Source. World Development Indicators; The World Bank
Notes. The period used was 1990-2005, unless specified. For Bosnia and Herzegovina the period used was1992-2005, for Eritrea 1992-2005, for Kuwait 1995-2005.

Variable. Consumer Price Inflation
Definition. Consumer Prices Annual % Change, 1990-2005 Average
Source. World Development Indicators; The World Bank
Notes. The period used was 1990-2005, unless specified. No information was available for Antigua and Bermuda, Cuba, Djibouti, Eritrea, Guinea, Kiribati, Liberia, Micronesia, Somalia, Turkmenistan, United Arab Emirates and Uzbekistan. For Albania the period used was 1992-2005, for Angola 1991-2005, for Armenia 1994-2005, for Azerbaijan 1992-2005, for Belarus 1993-2005, for Benin 1993-2005, for Cambodia 1995-2005, for Czech Republic 1994-2005, for Estonia 1993-2005, for Georgia 1995-2005, for Germany 1992-2005, for Guyana 1995-2005, for Kazakhstan 1994-2005, for Kyrgyz 1996-2005, for Latvia 1992-2005, for Lebanon 1990-1994, for Lithuania 1993-2005, for Mongolia 1993-2005, for Namibia 2003-2005, for Nicaragua 2002-2005, for Oman 2001-2005, for Romania 1991-2005, for Russia 1993-2005, for Serbia 1995-2005, for Slovak Republic 1994-2005, Slovenia 1993-2005, for Tajikistan 2001-2005, for Ukraine 1993-2005, for Vietnam 1996-2005, for Yemen 1991-2005

Variable. Political Rights Index
Definition. Political Rights are measured on a one-to-seven scale, with one representing the highest degree of Freedom and seven the lowest, 1990-2005 Average
Source. Freedom House
Source. The time span used was 1990-2005. No information was available for Myanmar

Variable. Civil Liberty Index
Definition. Civil Liberties are measured on a one-to-seven scale, with one representing the highest degree of Freedom and seven the lowest, 1990-2005 Average
Source. Freedom House
Notes. The time span used was 1990-2005. No information was available for Myanmar

Variable. Index of Political Freedom
Definition. Political Right Index+Civil Liberties Index, 1990-2005 Average
Source. Freedom House

Variable. Union membership/Total Employment
Definition. Percentage (%) of people, 1990-2005 Average
Source. Lawrence and Ishikawa, 2005
Notes. No information was available for Chile, El Salvador, Venezuela, Czech Republic, Denmark, Thailand, Lithuania, Portugal and Ukraine. For Egypt the year of study was 2003; For Ethiopia 2001; for Mauritius 2002; for Senegal 1999; for Brazil 2001; for Canada 2003; for Costa Rica 2004; for Mexico 2002; for Nicaragua 2003; for United States 2000; for India 1999 and 2000; for Japan2003; for Korea 2001; for Malaysia 2003;for Philippines 2003; for Singapore 2003; for Sri Lanka 2003; for Spain 2000; for Estonia 2004; for Finland 2004; for France 200; for Hungary 2004; for Ireland 2003; for Italy 2000; for Latvia 2003; for Netherlands 2001; for Norway 2003; for Poland 2002; for Romania 2001; for Switzerland 2003; for Sweden 2002; for Turkey 2001; for United Kingdom 2000 and 2001; for Australia 2000; for New Zealand 2004

Variable. People covered by collective contracts/Total employment
Definition. Percentage (%) of people, 1990-2005 Average
Source. Lawrence and Ishikawa
Notes. No information was available for Chile, El Salvador, Venezuela, Czech Republic, Denmark, Thailand, Lithuania, Portugal and Ukraine. For Egypt the year of study was 2003; For Ethiopia 2001; for Mauritius 2002; for Senegal 1999; for Brazil 2001; for Canada 2003; for Costa Rica 2004; for Mexico 2002; for Nicaragua 2003; for United States 2000; for India 1999 and 2000; for Japan2003; for Korea 2001; for Malaysia 2003;for Philippines 2003; for Singapore 2003; for Sri Lanka 2003; for Spain 2000; for Estonia 2004; for Finland 2004; for France 200; for Hungary 2004; for Ireland 2003; for Italy 2000; for Latvia 2003; for Netherlands 2001; for Norway 2003; for Poland 2002; for Romania 2001; for Switzerland 2003; for Sweden 2002; for Turkey 2001; for United Kingdom 2000 and 2001; for Australia 2000; for New Zealand 2004

Variable. Would Accept Neighbors of Different Race? (Yes)
Definition. Percentage (%) of interviewed
Source. World Values Survey, 1999-2002
Notes. No information was available for Angola, Antigua and Barbuda, Bahamas, Bahrain, Belize, Benin, Bhutan Bolivia, Botswana Brunei, Burkina Faso, Burundi, Cambodia Cameroon, Cape Verde, Central African Republic, Chad, Congo, Costa Rica, Cote d'Ivoire, Cuba Cyprus, Ecuador, Equatorial Guinea, Eritrea, Ethiopia, Fiji, Gabon, Gambia, Ghana, Grenada, Guatemala, Guinea, Guinea Bissau, Guyana, Haiti, Honduras, Jamaica, Kazakhstan, Kenya, Kiribati, Kuwait, Kyrgyz, Lao PDR, Lebanon, Lesotho, Liberia, Madagascar, Malawi, Malaysia, Mali, Marshall Islands, Mauritania, Mauritius, Micronesia, Mongolia, Mozambique, Myanmar, Namibia, Nepal, Nicaragua, Niger, Panama, Papua New Guinea, Paraguay, Qatar, Rwanda, Saudi Arabia, Senegal, Serbia, Seychelles, Sierra Leone, Solomon Islands, Somalia, Sri Lanka, St. Kitts and Nevis, Sudan, Suriname, Swaziland, Syria, Tajikistan, Thailand, Togo, Tonga, Trinidad and Tobago, Tunisia, Turkmenistan, United Arab Emirates, Uzbekistan, Vanuatu, Yemen, Zambia

Variable. How Concerned are you about countrymen? (Very)
Definition. Percentage (%) of interviewed
Source. World Values Survey, 1999-2002
Notes. No information was available for Angola, Antigua and Barbuda, Bahamas, Bahrain, Belize, Benin, Bhutan Bolivia, Botswana Brunei, Burkina Faso, Burundi, Cambodia Cameroon, Cape Verde, Central African Republic, Chad, Congo, Costa Rica, Cote d'Ivoire, Cuba Cyprus, Ecuador, Equatorial Guinea, Eritrea, Ethiopia, Fiji, Gabon, Gambia, Ghana, Grenada, Guatemala, Guinea, Guinea Bissau, Guyana, Haiti, Honduras, Jamaica, Kazakhstan, Kenya, Kiribati, Kuwait, Kyrgyz, Lao PDR, Lebanon, Lesotho, Liberia, Madagascar, Malawi, Malaysia, Mali, Marshall Islands, Mauritania, Mauritius, Micronesia, Mongolia, Mozambique, Myanmar, Namibia, Nepal, Nicaragua, Niger, Panama, Papua New Guinea, Paraguay, Qatar, Rwanda, Saudi Arabia, Senegal, Serbia, Seychelles, Sierra Leone, Solomon Islands, Somalia, Sri Lanka, St. Kitts and Nevis, Singapore, Sudan, Suriname, Swaziland, Syria, Tajikistan, Thailand, Togo, Tonga, Trinidad and Tobago, Tunisia, Turkmenistan, United Arab Emirates, Uzbekistan, Vanuatu, Yemen, Zambia

Variable. How proud are you of your nation (Very)
Definition. Percentage (%) of interviewed
Source. World Values Survey, 1999-2002
Notes. No information was available for Angola, Antigua and Barbuda, Bahamas, Bahrain, Belize, Benin, Bhutan Bolivia, Botswana Brunei, Burkina Faso, Burundi, Cambodia Cameroon, Cape Verde, Central African Republic, Chad, Congo, Costa Rica, Cote d'Ivoire, Cuba Cyprus, Ecuador, Equatorial Guinea, Eritrea, Ethiopia, Fiji, Gabon, Gambia, Ghana, Grenada, Guatemala, Guinea, Guinea Bissau, Guyana, Haiti, Honduras, Jamaica, Kazakhstan, Kenya, Kiribati, Kuwait, Kyrgyz, Lao PDR, Lebanon, Lesotho, Liberia, Madagascar, Malawi, Malaysia, Mali, Marshall Islands, Mauritania, Mauritius, Micronesia, Mongolia, Mozambique, Myanmar, Namibia, Nepal, Nicaragua, Niger, Panama, Papua New Guinea, Paraguay, Qatar, Rwanda, Saudi Arabia, Senegal, Serbia, Seychelles, Sierra Leone, Solomon Islands, Somalia, Sri Lanka, St. Kitts and Nevis, Sudan, Suriname, Swaziland, Syria, Tajikistan, Thailand, Togo, Tonga, Trinidad and Tobago, Tunisia, Turkmenistan, United Arab Emirates, Uzbekistan, Vanuatu, Yemen, Zambia

Variable. Political Scale (Right)
Definition. Percentage (%) of interviewed
Source. World Values Survey, 1999-2002
Notes. No information was available for Angola, Antigua and Barbuda, Bahamas, Bahrain, Belize, Benin, Bhutan, Bolivia, Botswana Brunei, Burkina Faso, Burundi, Cambodia Cameroon, Cape Verde, Central African Republic, Chad, Congo, Costa Rica, Cote d'Ivoire, Cuba Cyprus, Denmark, Ecuador, Equatorial Guinea, Eritrea, Ethiopia, Fiji, Gabon, Gambia, Ghana, Greece, Grenada, Guatemala, Guinea, Guinea Bissau, Guyana, Haiti, Honduras, India, Jamaica, Kazakhstan, Kenya, Kiribati, Kuwait, Kyrgyz, Lao PDR, Lebanon, Lesotho, Liberia, Madagascar, Malawi, Malaysia, Mali, Marshall Islands, Mauritania, Mauritius, Micronesia, Mongolia, Mozambique, Myanmar, Namibia, Nepal, Nicaragua, Niger, Nigeria, Pakistan, Panama, Papua New Guinea, Paraguay, Qatar, Rwanda, Saudi Arabia, Senegal, Serbia, Seychelles, Sierra Leone, Singapore Solomon Islands, Somalia, Sri Lanka, St. Kitts and Nevis, Sudan, Suriname, Swaziland, Sweden, Syria, Tajikistan, Thailand, Togo, Tonga, Trinidad and Tobago, Tunisia, Turkmenistan, United Arab Emirates, Uzbekistan, Vanuatu, Yemen, Zambia

Variable. More equal or more unequal incomes: Larger incomes as incentives (Agree)
Definition. Percentage (%) of interviewed
Source. World Values Survey, 1999-2002
Notes. No information was available for Angola, Antigua and Barbuda, Bahamas, Bahrain, Belize, Benin, Bhutan Bolivia, Botswana Brunei, Burkina Faso, Burundi, Cambodia Cameroon, Cape Verde, Central African Republic, Chad, Congo, Costa Rica, Cote d'Ivoire, Cuba Cyprus, Denmark, Ecuador, Equatorial Guinea, Eritrea, Ethiopia, Fiji, Gabon, Gambia, Ghana, Greece, Grenada, Guatemala, Guinea, Guinea Bissau, Guyana, Haiti, Honduras, Jamaica, Kazakhstan, Kenya, Kiribati, Kuwait, Kyrgyz, Lao PDR, Lebanon, Lesotho, Liberia, Madagascar, Malawi, Malaysia, Mali, Marshall Islands, Mauritania, Mauritius, Micronesia, Mongolia, Mozambique, Myanmar, Namibia, Nepal, Nicaragua, Niger, Nigeria, Pakistan, Panama, Papua New Guinea, Paraguay, Qatar, Rwanda, Saudi Arabia, Senegal, Serbia, Seychelles, Sierra Leone, Solomon Islands, Somalia, Sri Lanka, St. Kitts and Nevis, Sudan, Suriname, Swaziland, Sweden, Syria, Tajikistan, Thailand, Togo, Tonga, Trinidad and Tobago, Tunisia, Turkmenistan, United Arab Emirates, Uzbekistan, Vanuatu, Yemen, Zambia

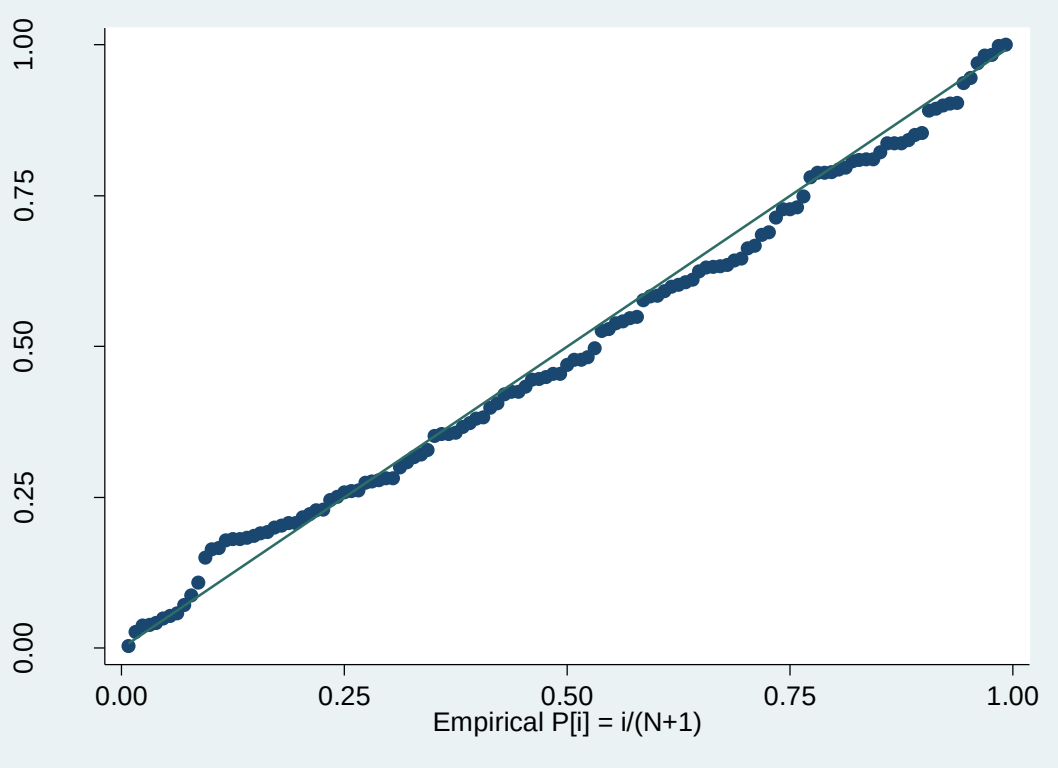
Variable. Competition is good: It stimulates new ideas (Agree)
Definition. Percentage (%) of interviewed
Source. World Values Survey, 1999-2002
Notes. No information was available for Angola, Antigua and Barbuda, Bahamas, Bahrain, Belize, Benin, Bhutan Bolivia, Botswana Brunei, Burkina Faso, Burundi, Cambodia Cameroon, Cape Verde, Central African Republic, Chad, Congo, Costa Rica, Cote d'Ivoire, Cuba Cyprus, Ecuador, Equatorial Guinea, Eritrea, Ethiopia, Fiji, Gabon, Gambia, Ghana, Grenada, Guatemala, Guinea, Guinea Bissau, Guyana, Haiti, Honduras, Jamaica, Kazakhstan, Kenya, Kiribati, Kuwait, Kyrgyz, Lao PDR, Lebanon, Lesotho, Liberia, Madagascar, Malawi, Malaysia, Mali, Marshall Islands, Mauritania, Mauritius, Micronesia, Mongolia, Mozambique, Myanmar, Namibia, Nepal, Nicaragua, Niger, Nigeria, Pakistan Panama, Papua New Guinea, Paraguay, Qatar, Rwanda, Saudi Arabia, Senegal, Serbia, Seychelles, Sierra Leone, Solomon Islands, Somalia, Sri Lanka, St. Kitts and Nevis, Sudan, Suriname, Swaziland, Syria, Tajikistan, Thailand, Togo, Tonga, Trinidad and Tobago, Tunisia, Turkmenistan, United Arab Emirates, Uzbekistan, Vanuatu, Yemen, Zambia

Appendix 3. Regression Logs and Scatter Plots of Residuals: Whole Sample

```
. reg  hdi_level inflation polfree electoral telephones gdppcgrowth ethnicfr
religiou
```

```
      Source |       SS       df       MS              Number of obs =     156
-------------+------------------------------           F(  7,   148) =   50.88
       Model |  3.31155247     7  .473078924            Prob > F      =  0.0000
    Residual |  1.37619133   148   .00929859            R-squared     =  0.7064
-------------+------------------------------           Adj R-squared =  0.6925
       Total |   4.6877438   155  .030243508            Root MSE      =  .09643
```

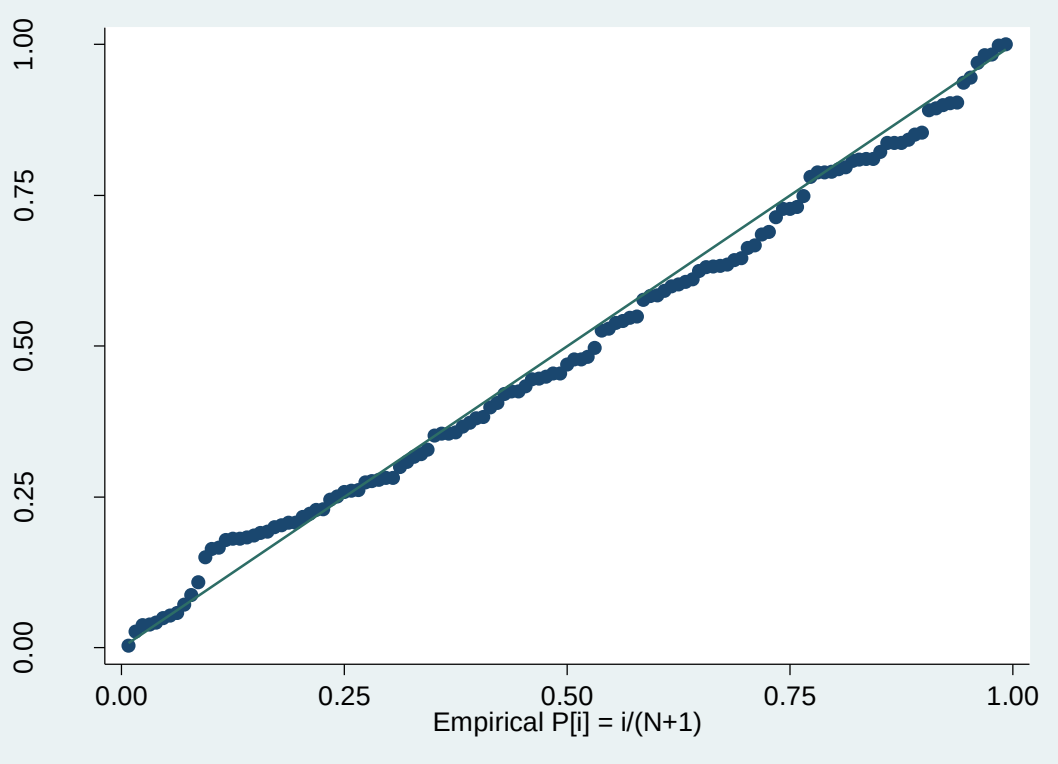
hdi_level	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
inflation	7.74e-06	.0000416	0.19	0.853	-.0000745	.0000899
polfree	.003599	.004528	0.79	0.428	-.0125474	.0053488
electoral	-.0124274	.027463	-0.45	0.652	-.0418427	.0666976
telephones	.0061583	.0006213	9.91	0.000	.0049305	.0073862
gdppcgrowth	.005765	.0035011	1.65	0.102	-.0011535	.0126835
ethnicfr	-.1148424	.0360132	-3.19	0.002	-.1860089	-.0436758
religiou	-.0279366	.0346422	-0.81	0.421	-.0963939	.0405207
_cons	.6643367	.0589986	11.26	0.000	.5477481	.7809252



```
. reg  hdi_level inflation polfree electoral telephones gdppcgrowth ethnicfr
religiou, robust

Linear regression                                      Number of obs =     156
                                                       F(  7,   148) =   56.96
                                                       Prob > F      =  0.0000
                                                       R-squared     =  0.7064
                                                       Root MSE      =  .09643

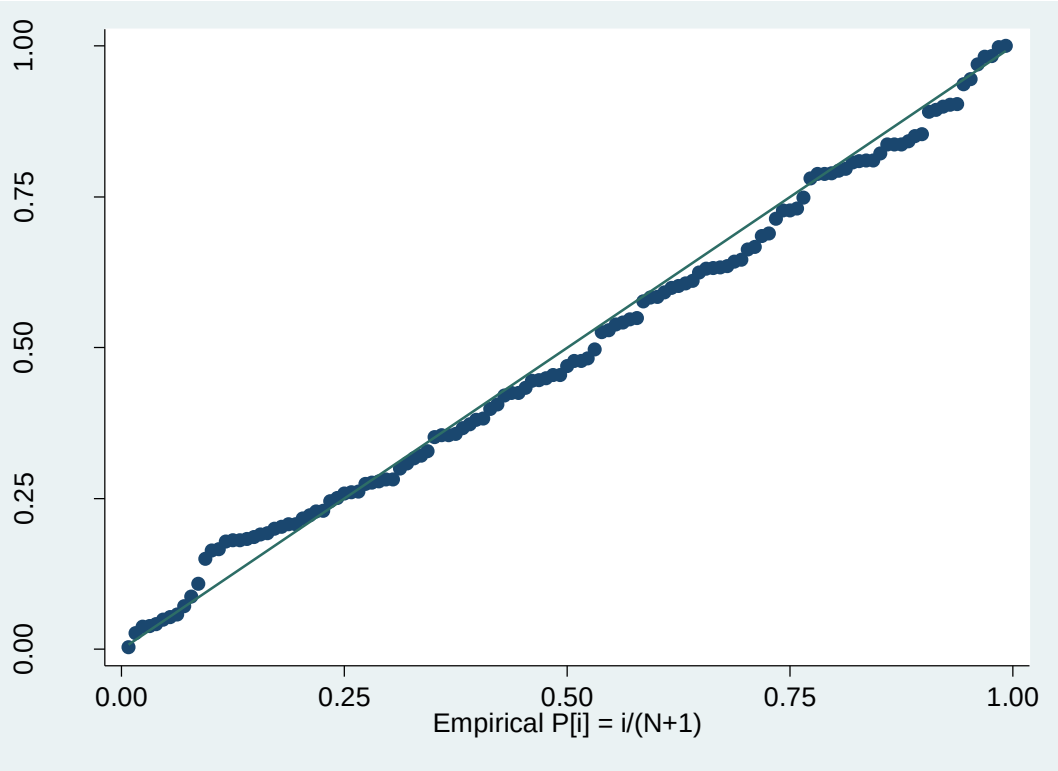
------------------------------------------------------------------------------
             |               Robust
   hdi_level |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
   inflation |   7.74e-06   .0000407     0.19   0.850    -.0000728    .0000882
     polfree |   -.003599   -.004826     0.75   0.457    -.0131366    .0059379
   electoral |    .0124274   .0317793    0.39   0.696    -.0503723    .0752272
  telephones |   .0061583   .0006097    10.10   0.000     .0049534    .0073632
 gdppcgrowth |    .005765   .0039586     1.46   0.147    -.0020576    .0135876
    ethnicfr |  -.1148424   .0373857    -3.07   0.003    -.1887211   -.0409636
    religiou |  -.0279366   .0326095    -0.86   0.393     -.092377    .0365038
       _cons |   .6643367   .0612299    10.85   0.000     .5433388    .7853345
------------------------------------------------------------------------------
```



```
. reg  govexpe inflation polfree electoral telephones gdppcgrowth ethnicfr
religiou

      Source |       SS       df       MS              Number of obs =     127
-------------+------------------------------           F(  7,   119) =   13.07
       Model |  5505.05366     7  786.436238            Prob > F      =  0.0000
    Residual |  7157.79277   119  60.1495191            R-squared     =  0.4347
-------------+------------------------------           Adj R-squared =  0.4015
       Total |  12662.8464   126  100.498781            Root MSE      =  7.7556

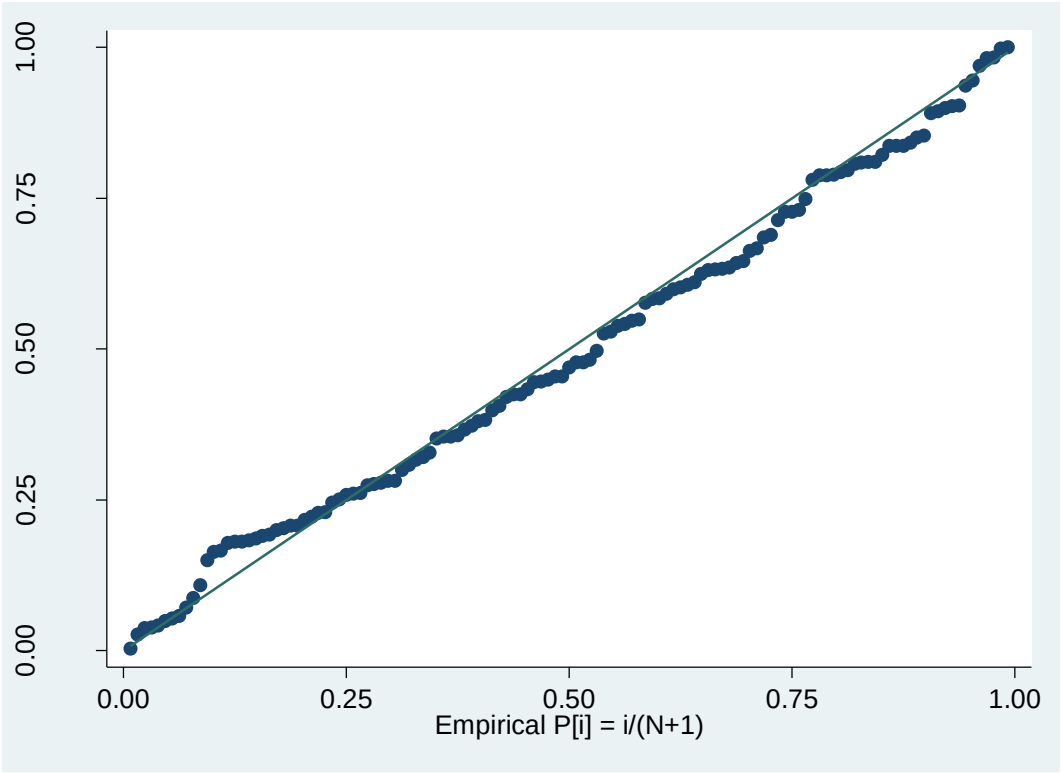
------------------------------------------------------------------------------
     govexpe |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
   inflation |  -.0010289   .0035868    -0.29   0.775    -.0081312    .0060733
     polfree |   1.481246   .4541979     3.26   0.001    -2.380604   -.5818891
   electoral |    8.05916   2.692899     2.99   0.003    -13.39137   -2.726951
  telephones |   .1523664   .0552212     2.76   0.007     .0430229    .2617098
 gdppcgrowth |  -.5342137   .4034491    -1.32   0.188    -1.333083    .2646558
    ethnicfr |  -7.975654   3.233297    -2.47   0.015     -14.3779   -1.573402
    religiou |   -2.25978   3.142397    -0.72   0.473    -8.482041    3.962481
       _cons |   42.58073   5.771389     7.38   0.000      31.1528    54.00865
------------------------------------------------------------------------------
```



```
. reg  govexpe inflation polfree electoral telephones gdppcgrowth ethnicfr
religiou, robust

Linear regression                               Number of obs =     127
                                                F(  7,   119) =   19.03
                                                Prob > F      =  0.0000
                                                R-squared     =  0.4347
                                                Root MSE      =  7.7556

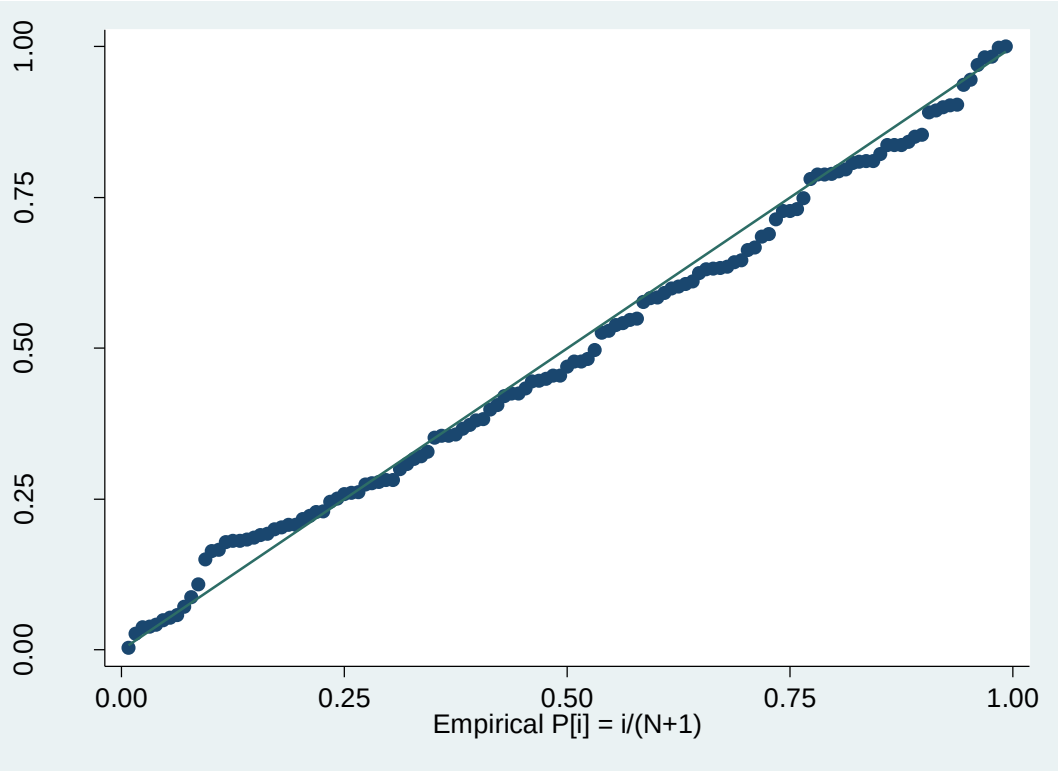
------------------------------------------------------------------------------
             |               Robust
     govexpe |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
   inflation |  -.0010289   .0025691    -0.40   0.690     -.006116    .0040581
     polfree |   1.481246   .3924949     3.77   0.000    -2.258426   -.7040673
   electoral |   8.05916   2.319921      3.47   0.001    -12.65284   -3.465484
  telephones |   .1523664   .0606559     2.51   0.013     .0322615    .2724712
 gdppcgrowth |  -.5342137   .3576735    -1.49   0.138    -1.242443    .1740156
    ethnicfr |  -7.975654   3.142359    -2.54   0.012    -14.19784   -1.753468
    religiou |   -2.25978   2.683757    -0.84   0.401    -7.573886    3.054326
       _cons |   42.58073   4.742692     8.98   0.000     33.18972    51.97173
------------------------------------------------------------------------------
```



```
. reg govreve inflation gdppcgrowth polfree electoral telephones ethnicfr
religiou

      Source |       SS       df       MS              Number of obs =     128
-------------+------------------------------           F(  7,   120) =   15.51
       Model |    6176.458     7  882.351143           Prob > F      =  0.0000
    Residual |  6827.00695   120  56.8917246           R-squared     =  0.4750
-------------+------------------------------           Adj R-squared =  0.4444
       Total |   13003.465   127  102.389488           Root MSE      =  7.5427

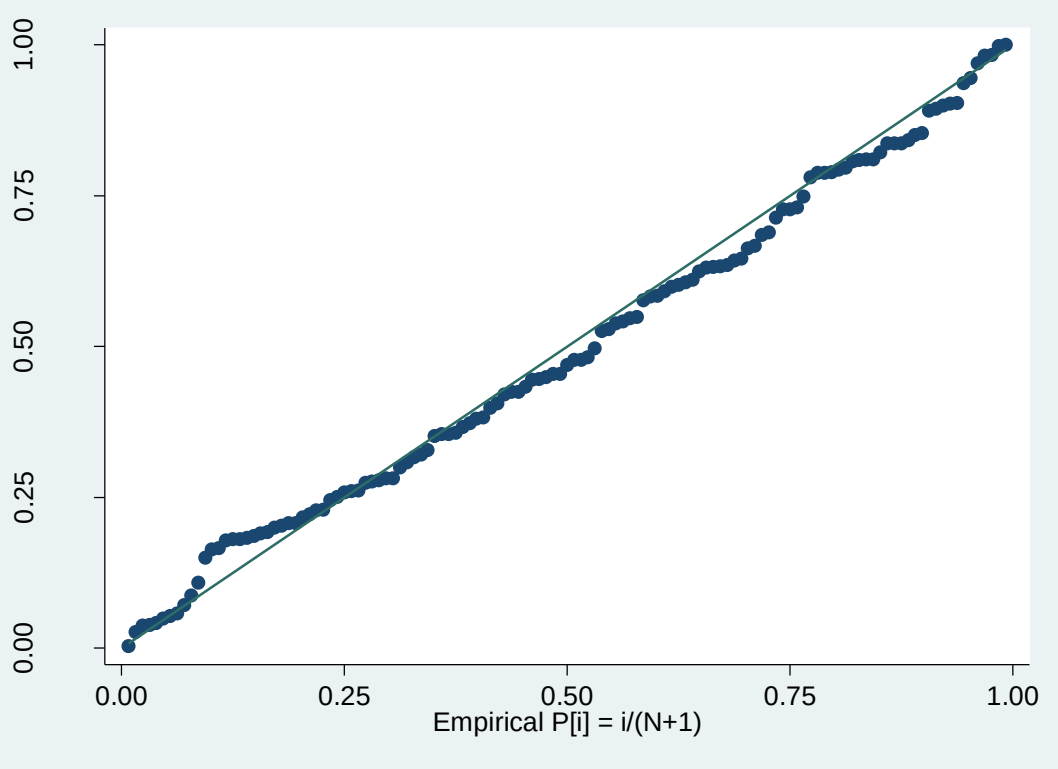
------------------------------------------------------------------------------
     govreve |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
   inflation |   -.002855    .003481    -0.82   0.414    -.0097472    .0040372
 gdppcgrowth |  -.2284631    .3923517   -0.58   0.561    -1.005292    .5483659
     polfree |    1.47589    .4332885    3.41   0.001    -2.333771    -.618009
   electoral |   8.371189    2.611491    3.21   0.002    -13.54176   -3.200618
  telephones |   .1730527    .0532429    3.25   0.001     .0676355    .2784698
   ethnicfr |  -6.845578    3.143926   -2.18   0.031    -13.07033   -.6208241
   religiou |  -5.626426    3.055908   -1.84   0.068    -11.67691    .4240582
      _cons |    42.7961    5.554302    7.71   0.000     31.79897    53.79323
------------------------------------------------------------------------------
```



```
. reg govreve inflation gdppcgrowth polfree electoral telephones ethnicfr
religiou, robust

Linear regression                               Number of obs =     128
                                                F(  7,   120) =   26.79
                                                Prob > F      =  0.0000
                                                R-squared     =  0.4750
                                                Root MSE      =  7.5427

------------------------------------------------------------------------------
             |               Robust
     govreve |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
   inflation |   -.002855   .0023555    -1.21   0.228    -.0075187    .0018087
 gdppcgrowth |  -.2284631   .4168736    -0.55   0.585    -1.053844    .5969176
     polfree |    1.47589   .4834921     3.05   0.003    -2.433171   -.5186094
   electoral |   8.371189   2.537368     3.30   0.001      -13.395   -3.347376
  telephones |   .1730527   .0752074     2.30   0.023     .0241473    .3219581
    ethnicfr |  -6.845578    3.50918    -1.95   0.053    -13.79351     .102354
    religiou |  -5.626426   3.105348    -1.81   0.073     -11.7748    .5219459
       _cons |    42.7961   5.973449     7.16   0.000     30.96909    54.62311
------------------------------------------------------------------------------
```

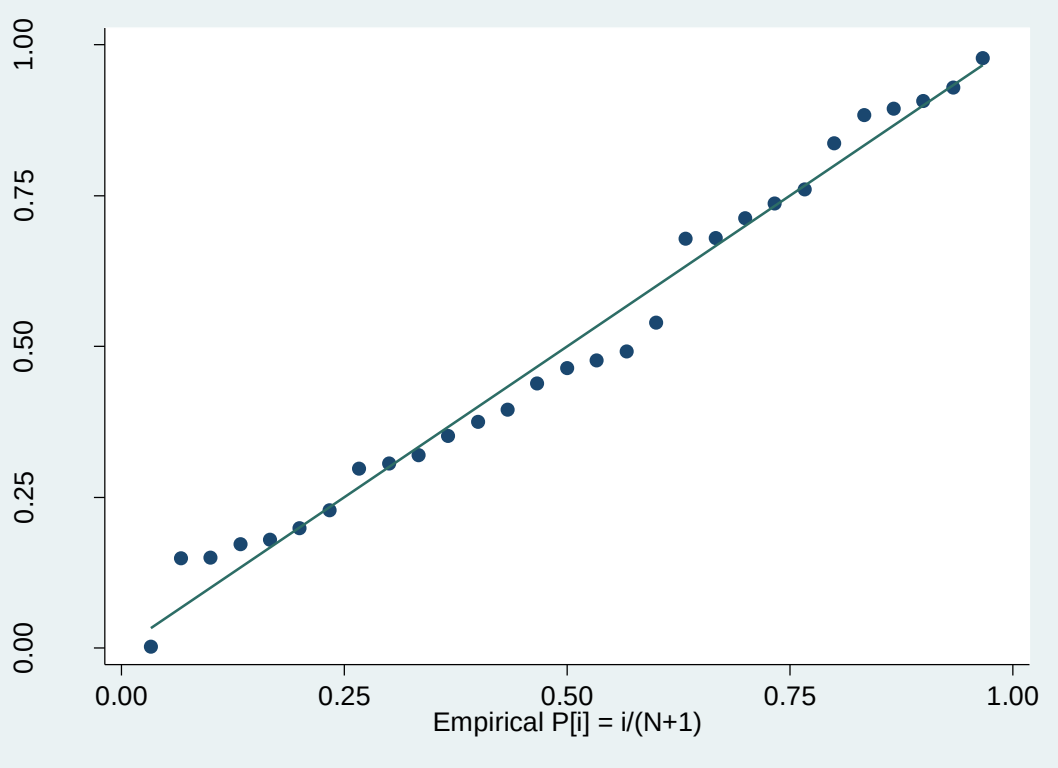


Appendix 4. Regression Logs and Scatter Plots of Residuals: OECD

```
. reg  govexpe inflation polfree telephones gdppcgrowth ethnicfr religiou

      Source |       SS       df       MS              Number of obs =      29
-------------+------------------------------           F(  6,    22) =    2.93
       Model |   969.53303     6  161.588838            Prob > F      =  0.0294
    Residual |  1211.71009    22  55.0777312            R-squared     =  0.4445
-------------+------------------------------           Adj R-squared =  0.2930
       Total |  2181.24312    28  77.9015399            Root MSE      =  7.4214

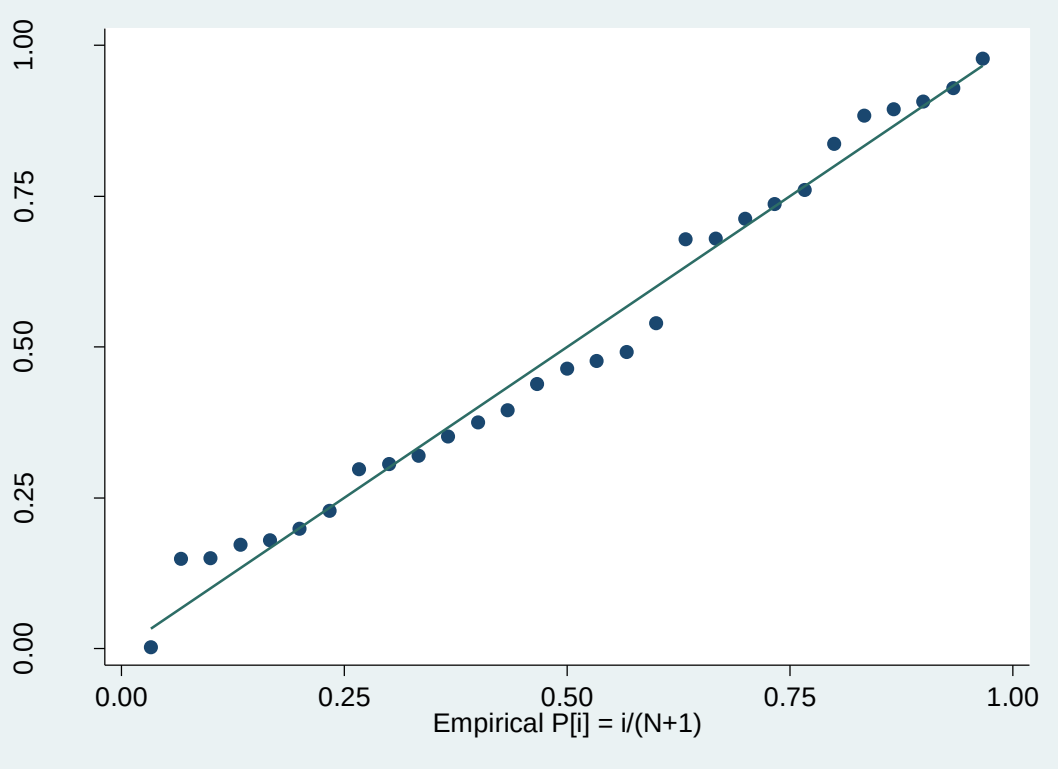
------------------------------------------------------------------------------
     govexpe |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
   inflation |   .0092695   .1812784     0.05   0.960    -.3666789     .385218
     polfree |   6.159851   2.022943     3.04   0.006    -10.35518   -1.964523
  telephones |  -.3116823     .16137    -1.93   0.066    -.6463433    .0229787
gdppcgrowth |  -2.515881   1.446667    -1.74   0.096    -5.516084     .484322
    ethnicfr |  -11.29565   7.282785    -1.55   0.135    -26.39922    3.807927
    religiou |  -11.98528   6.070533    -1.97   0.061    -24.57479    .6042353
       _cons |   76.98542   13.39821     5.75   0.000     49.19924    104.7716
------------------------------------------------------------------------------
```



```
. reg  govexpe inflation polfree telephones gdppcgrowth ethnicfr religiou,
robust

Linear regression                                      Number of obs =      29
                                                       F(  6,    22) =    7.44
                                                       Prob > F      =  0.0002
                                                       R-squared     =  0.4445
                                                       Root MSE      =  7.4214

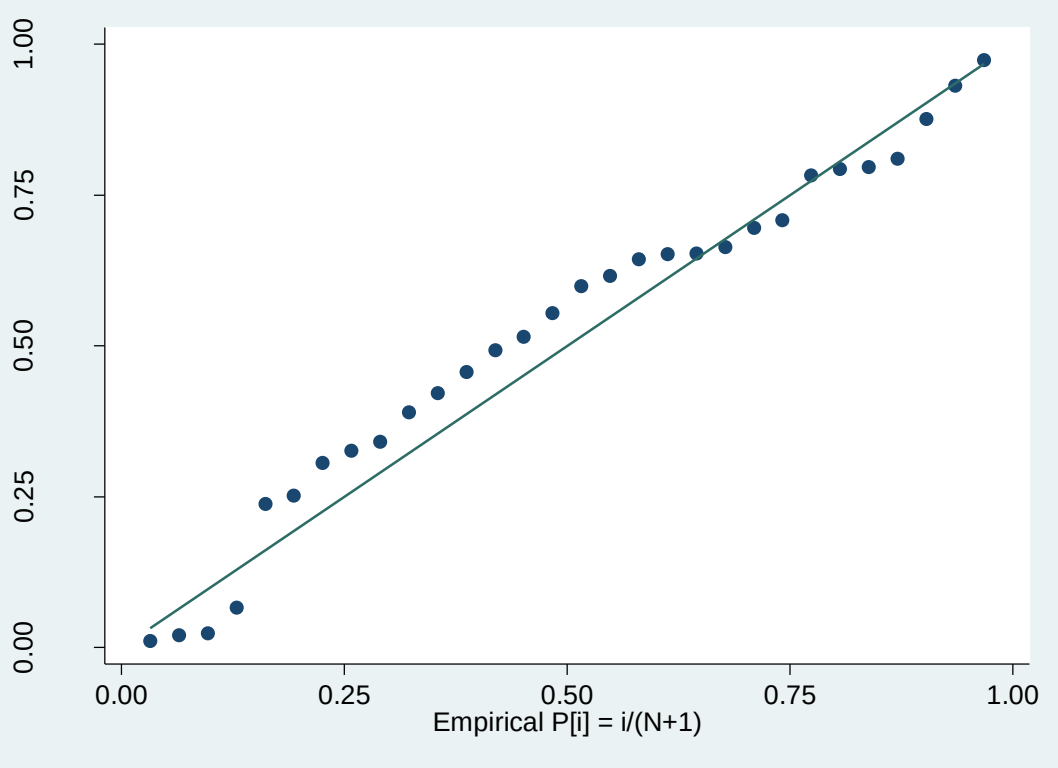
------------------------------------------------------------------------------
             |               Robust
     govexpe |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
   inflation |   .0092695   .0902001     0.10   0.919     -.177794    .1963331
     polfree |   6.159851   1.889462     3.26   0.004    -10.07835   -2.241346
  telephones |  -.3116823    .124054    -2.51   0.020    -.5689545   -.0544101
gdppcgrowth |  -2.515881    .998394    -2.52   0.019    -4.586424   -.4453386
   ethnicfr |  -11.29565   8.240714    -1.37   0.184    -28.38584    5.794549
   religiou |  -11.98528   5.311579    -2.26   0.034    -23.00082   -.9697389
      _cons |   76.98542   9.835617     7.83   0.000      56.5876    97.38324
------------------------------------------------------------------------------
```



```
. reg  socspendocde inflation polfree telephones gdppcgrowth ethnicfr religiou

      Source |       SS       df       MS              Number of obs =      30
-------------+------------------------------           F(  6,    23) =    8.19
       Model |  746.322281     6  124.387047            Prob > F      =  0.0001
    Residual |  349.304303    23  15.1871436            R-squared     =  0.6812
-------------+------------------------------           Adj R-squared =  0.5980
       Total |  1095.62658    29   37.780227            Root MSE      =  3.8971

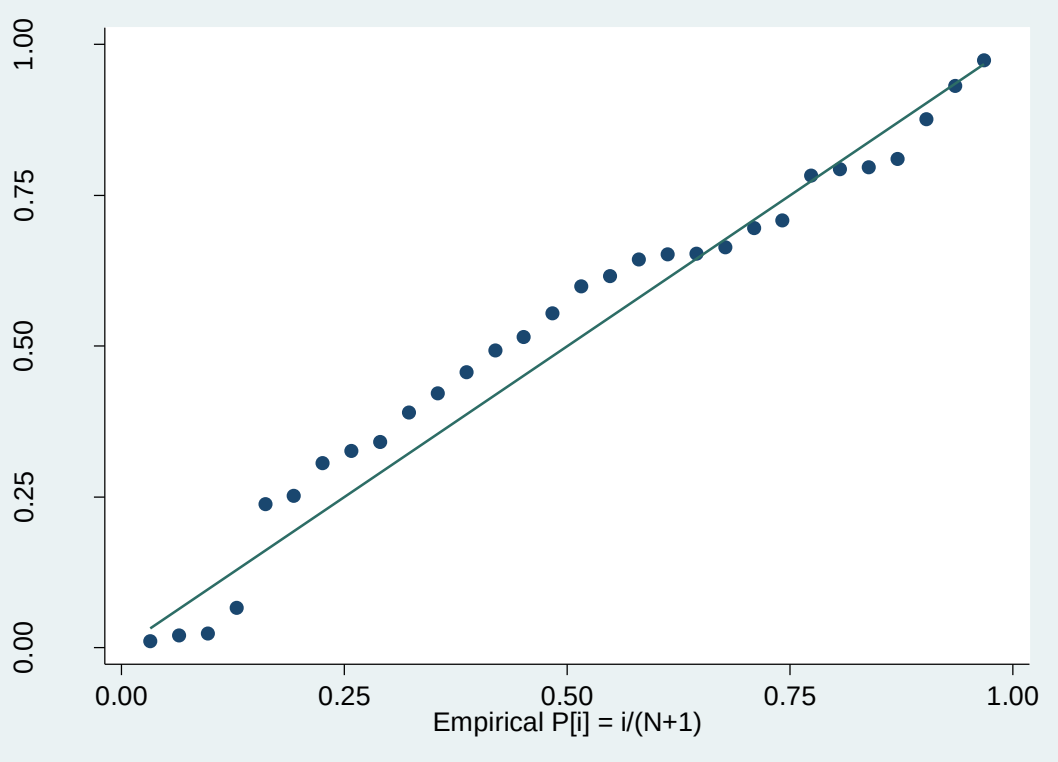
------------------------------------------------------------------------------
socspendocde |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
   inflation |    .107546   .0778871     1.38   0.181    -.0535758    .2686678
     polfree |   3.043723   .8419099     3.62   0.001    -4.785346     -1.3021
  telephones |   .0614562   .0716124     0.86   0.400    -.0866853    .2095977
gdppcgrowth |  -2.997122    .759032    -3.95   0.001    -4.567299   -1.426945
   ethnicfr |  -4.489385   3.821322    -1.17   0.252    -12.39439    3.415622
   religiou |   -9.40054   3.183698    -2.95   0.007    -15.98652   -2.814559
      _cons |   37.26416   5.789176     6.44   0.000     25.28834    49.23999
------------------------------------------------------------------------------
```



```
. reg  socspendocde inflation polfree telephones gdppcgrowth ethnicfr religiou,
robust

Linear regression                                      Number of obs =      30
                                                       F(  6,    23) =   18.35
                                                       Prob > F      =  0.0000
                                                       R-squared     =  0.6812
                                                       Root MSE      =  3.8971

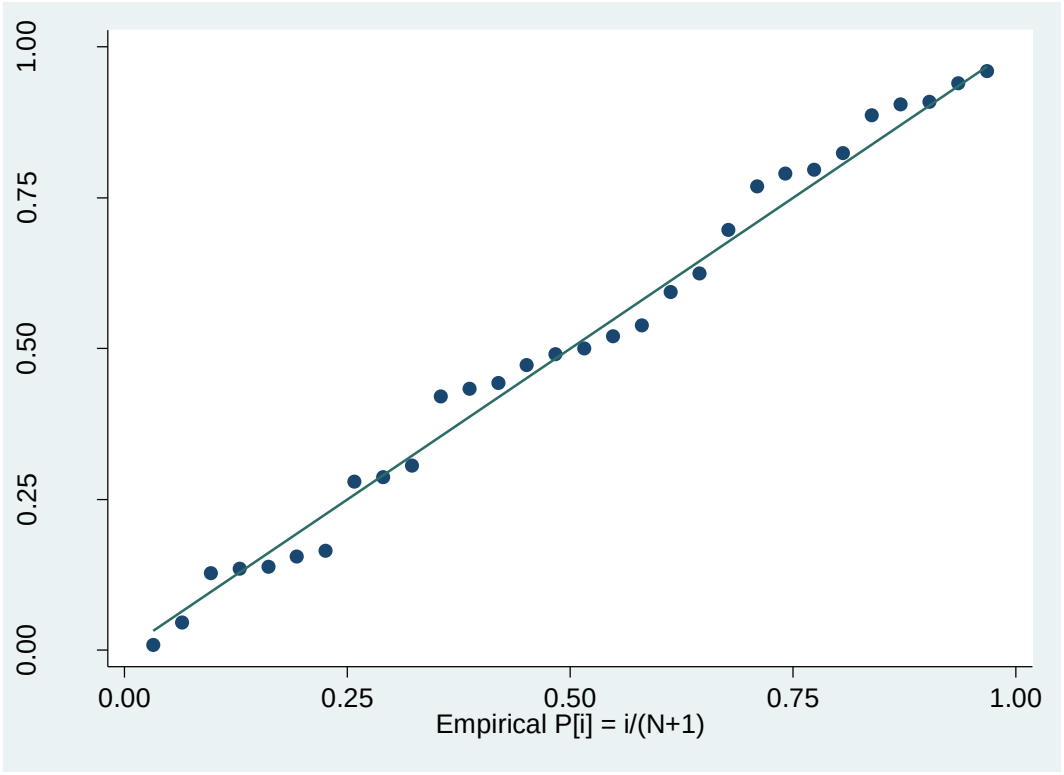
------------------------------------------------------------------------------
             |               Robust
socspendocde |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
   inflation |    .107546   .0447487     2.40   0.025     .0149764    .2001157
     polfree |   3.043723   .6400362     4.76   0.000    -4.367739   -1.719707
  telephones |   .0614562   .0672533     0.91   0.370    -.0776679    .2005802
gdppcgrowth |  -2.997122   .4900903    -6.12   0.000    -4.010951   -1.983293
   ethnicfr |  -4.489385   3.873735    -1.16   0.258    -12.50282    3.524046
   religiou |   -9.40054   3.246451    -2.90   0.008    -16.11634   -2.684745
      _cons |   37.26416   5.781136     6.45   0.000     25.30497    49.22335
------------------------------------------------------------------------------
```



```
. reg  govreve inflation polfree telephones gdppcgrowth ethnicfr religiou

      Source |       SS       df       MS              Number of obs =      30
-------------+------------------------------           F(  6,    23) =    8.49
       Model |   2057.7547     6  342.959117            Prob > F      =  0.0001
    Residual |  928.729577    23  40.3795468            R-squared     =  0.6890
-------------+------------------------------           Adj R-squared =  0.6079
       Total |  2986.48428    29  102.982217            Root MSE      =  6.3545

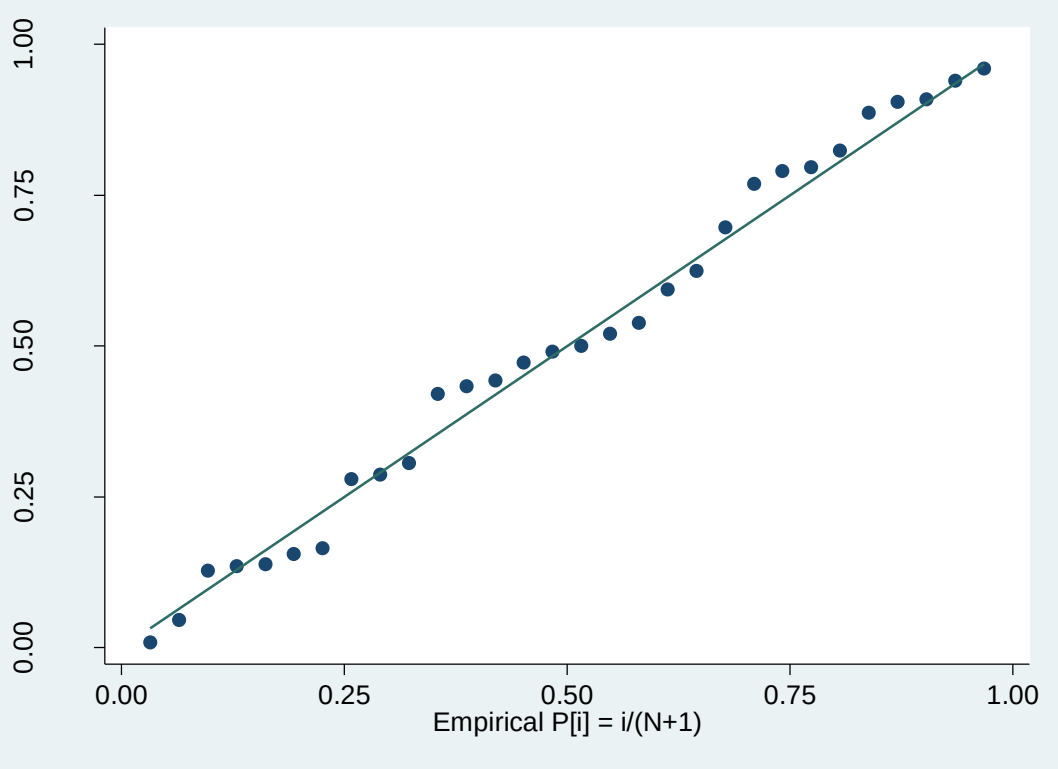
------------------------------------------------------------------------------
     govreve |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
   inflation |  -.1745378   .1270013    -1.37   0.183      -.43726    .0881845
     polfree |   6.157075   1.372803     4.49   0.000    -8.996935   -3.317215
  telephones |  -.2845033   .1167699    -2.44   0.023    -.5260602   -.0429464
gdppcgrowth |  -1.516645   1.237664    -1.23   0.233    -4.076948    1.043658
   ethnicfr |  -12.64832    6.23098    -2.03   0.054    -25.53808    .2414459
   religiou |  -14.25046   5.191281    -2.75   0.012    -24.98945   -3.511479
      _cons |   75.57745   9.439727     8.01   0.000     56.04988    95.10501
------------------------------------------------------------------------------
```



```
. reg  govreve inflation polfree telephones gdppcgrowth ethnicfr religiou,
robust

Linear regression                               Number of obs =      30
                                                F(  6,    23) =   26.34
                                                Prob > F      =  0.0000
                                                R-squared     =  0.6890
                                                Root MSE      =  6.3545

------------------------------------------------------------------------------
             |               Robust
     govreve |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
   inflation |  -.1745378   .0726994    -2.40   0.025     -.324928   -.0241476
     polfree |   6.157075   .9813037     6.27   0.000    -8.187056   -4.127093
  telephones |  -.2845033   .0959166    -2.97   0.007    -.4829219   -.0860847
gdppcgrowth |  -1.516645    1.13084    -1.34   0.193    -3.855965    .8226746
   ethnicfr |  -12.64832   7.059838    -1.79   0.086    -27.25271     1.95607
   religiou |  -14.25046   5.188232    -2.75   0.011    -24.98314   -3.517787
      _cons |   75.57745   8.182167     9.24   0.000     58.65134    92.50355
------------------------------------------------------------------------------
```

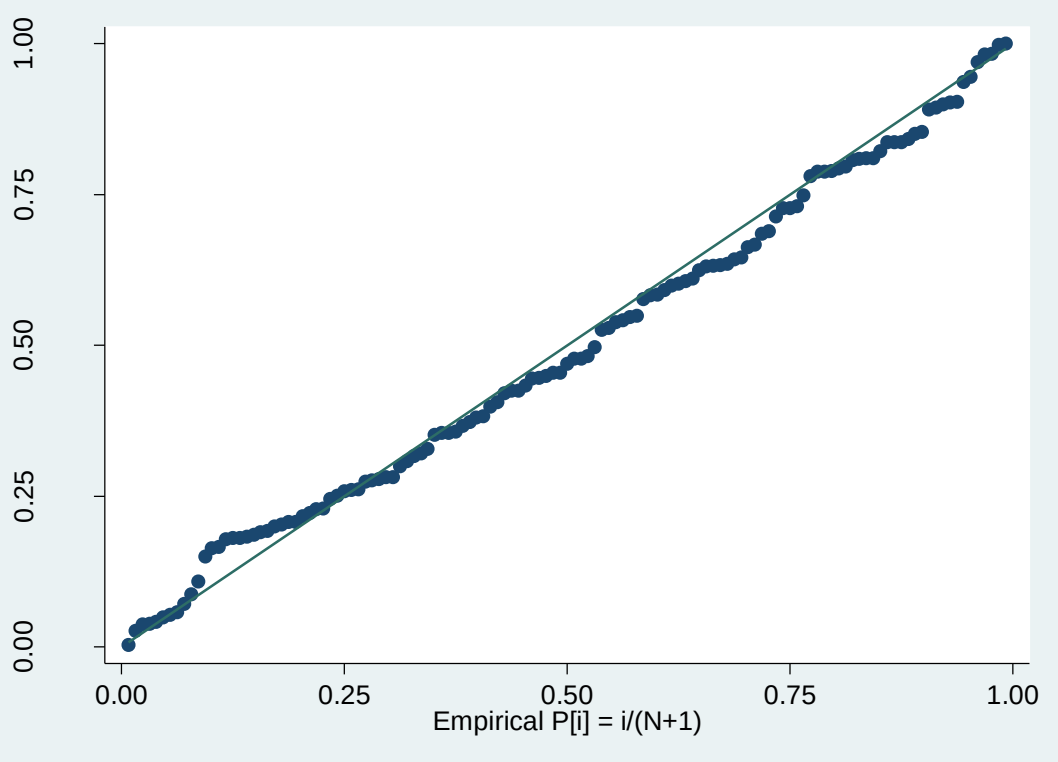


Appendix 5. Regression Logs and Scatter Plots of Residuals: Social Attitudes

```
. reg  neidifra telephones gdppcgrowth inflation electoral polfree ethnicfr
religiou
```

```
      Source |       SS       df       MS              Number of obs =      70
-------------+------------------------------           F(  7,    62) =    6.05
       Model |  4665.35894     7  666.479849           Prob > F      =  0.0000
    Residual |  6833.17564    62   110.21251           R-squared     =  0.4057
-------------+------------------------------           Adj R-squared =  0.3386
       Total |  11498.5346    69  166.645429           Root MSE      =  10.498

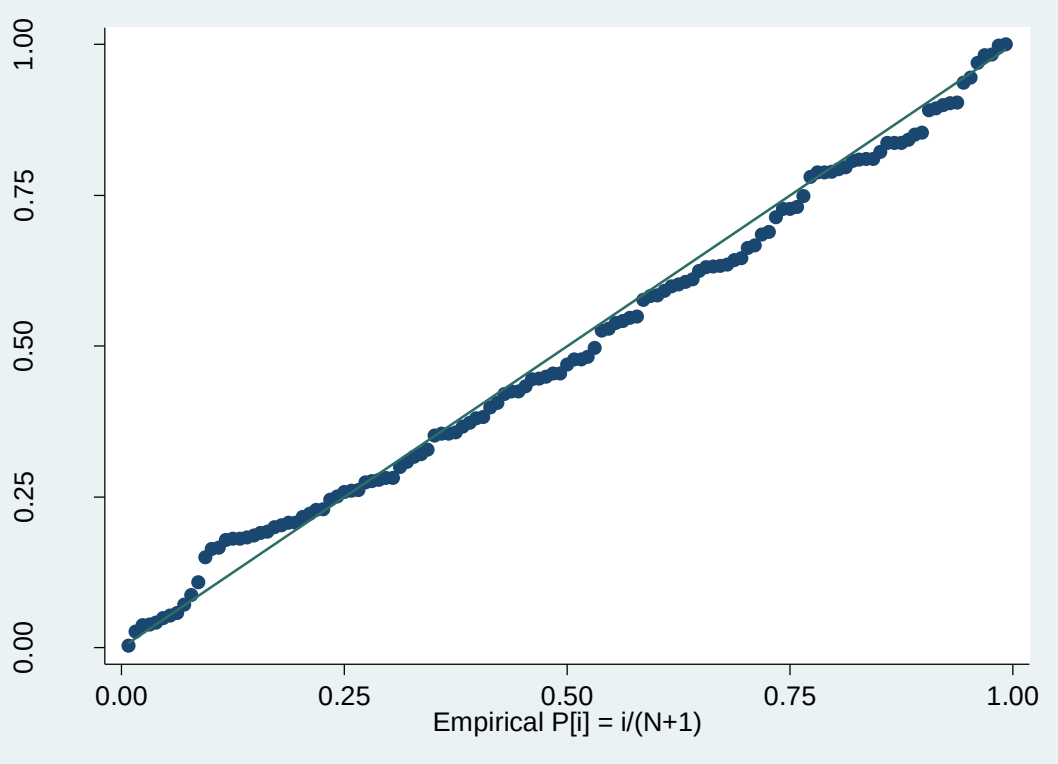
------------------------------------------------------------------------------
    neidifra |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
  telephones |  -.2312039    .109844    -2.10   0.039     -.450779   -.0116287
 gdppcgrowth |   .8000045   .7944904     1.01   0.318    -.7881592    2.388168
   inflation |  -.0252919   .0111688    -2.26   0.027    -.0476179   -.0029658
   electoral |   10.43979   5.356523     1.95   0.056    -.2677514    21.14732
     polfree |   2.017817   .9138575     2.21   0.031     .1910415    3.844592
    ethnicfr |  -13.82921   6.542409    -2.11   0.039     -26.9073   -.7511245
    religiou |  -3.251772   5.678385    -0.57   0.569     -14.6027    8.099159
       _cons |    8.40064   11.29271     0.74   0.460    -14.17316    30.97444
------------------------------------------------------------------------------
```



```
. reg  concountry telephones gdppcgrowth inflation electoral polfree ethnicfr
religiou

      Source |       SS       df       MS              Number of obs =      32
-------------+------------------------------           F(  7,    24) =    2.31
       Model |  1316.12336     7  188.017623            Prob > F      =  0.0599
    Residual |  1955.75164    24  81.4896516            R-squared     =  0.4023
-------------+------------------------------           Adj R-squared =  0.2279
       Total |    3271.875    31  105.544355            Root MSE      =  9.0272

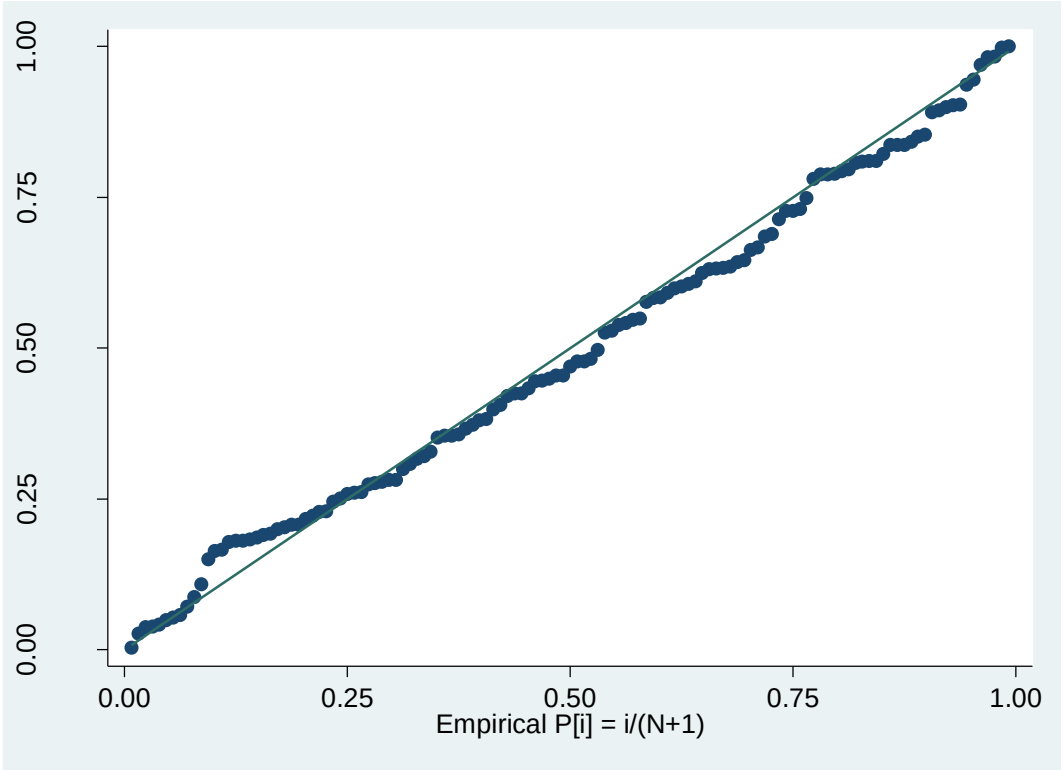
------------------------------------------------------------------------------
  concountry |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
  telephones |  -.2682893   .1714389    -1.56   0.131    -.6221217    .0855431
gdppcgrowth |    .691991   2.080833     0.33   0.742    -3.602637    4.986619
   inflation |   .0382336   .0293476     1.30   0.205    -.0223368     .098804
   electoral |   25.27193   15.48372     1.63   0.116    -57.22875    6.684883
     polfree |   1.614384   1.623399     0.99   0.330    -4.964915    1.736148
    ethnicfr |  -20.47153   11.35853    -1.80   0.084    -43.91438    2.971327
    religiou |  -10.21067   9.637814    -1.06   0.300    -30.10214    9.680803
       _cons |   71.61405   27.34204     2.62   0.015     15.18286    128.0452
------------------------------------------------------------------------------
```



```
. reg  proudnat telephones gdppcgrowth inflation electoral polfree ethnicfr
religiou

      Source |       SS       df       MS              Number of obs =      74
-------------+------------------------------           F(  7,    66) =    5.67
       Model |  13534.9347     7   1933.5621           Prob > F      =  0.0000
    Residual |  22499.0705    66  340.895007           R-squared     =  0.3756
-------------+------------------------------           Adj R-squared =  0.3094
       Total |  36034.0052    73  493.616509           Root MSE      =  18.463

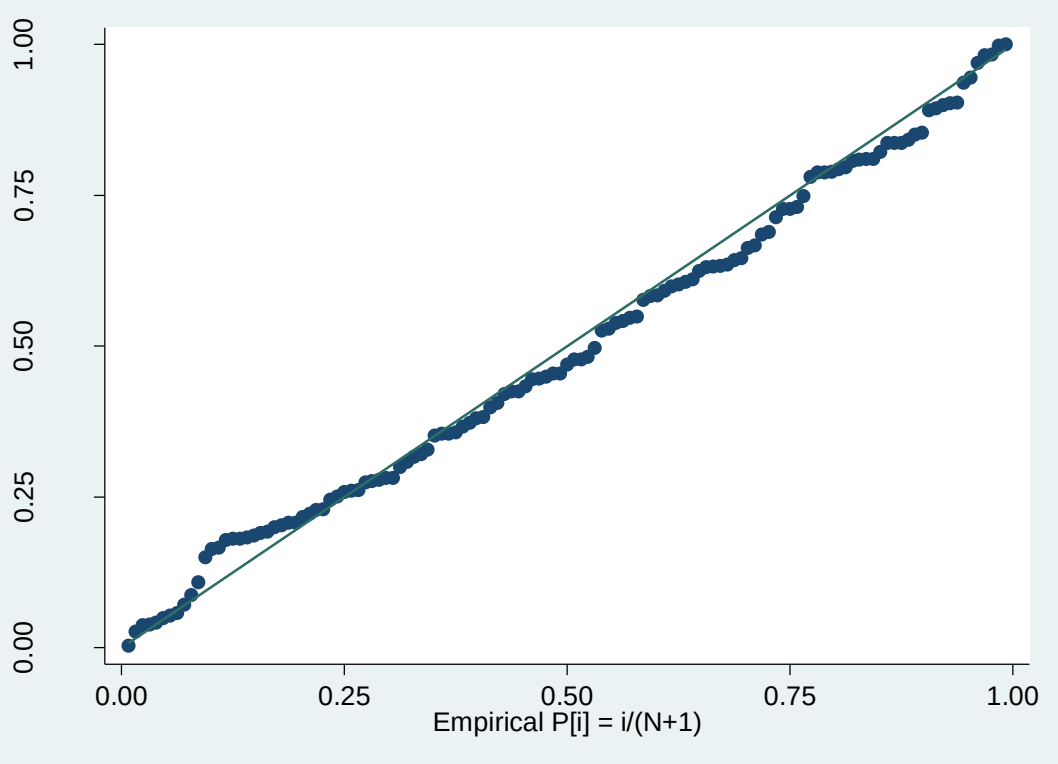
------------------------------------------------------------------------------
    proudnat |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
  telephones |  -.7028424     .18651    -3.77   0.000    -1.075222   -.3304632
gdppcgrowth |   .0391939   1.391019     0.03   0.978    -2.738065    2.816453
   inflation |  -.0206199    .019529    -1.06   0.295    -.0596108    .0183709
   electoral |   16.81424   9.382155     1.79   0.078    -35.54632    1.917837
     polfree |    2.89244   1.588159     1.82   0.073    -6.063302    .2784209
    ethnicfr |   7.944491   11.14617     0.71   0.479    -14.30956    30.19855
    religiou |  -26.88724   9.884253    -2.72   0.008    -46.62178   -7.152688
       _cons |   113.3527   19.53512     5.80   0.000     74.34956    152.3558
------------------------------------------------------------------------------
```



```
. reg  polscalr telephones gdppcgrowth inflation electoral polfree ethnicfr
religiou

      Source |       SS       df       MS              Number of obs =      70
-------------+------------------------------           F(  7,    62) =    6.87
       Model |  315.091846     7  45.0131209           Prob > F      =  0.0000
    Residual |   406.42257    62  6.55520274           R-squared     =  0.4367
-------------+------------------------------           Adj R-squared =  0.3731
       Total |  721.514416    69  10.4567307           Root MSE      =  2.5603

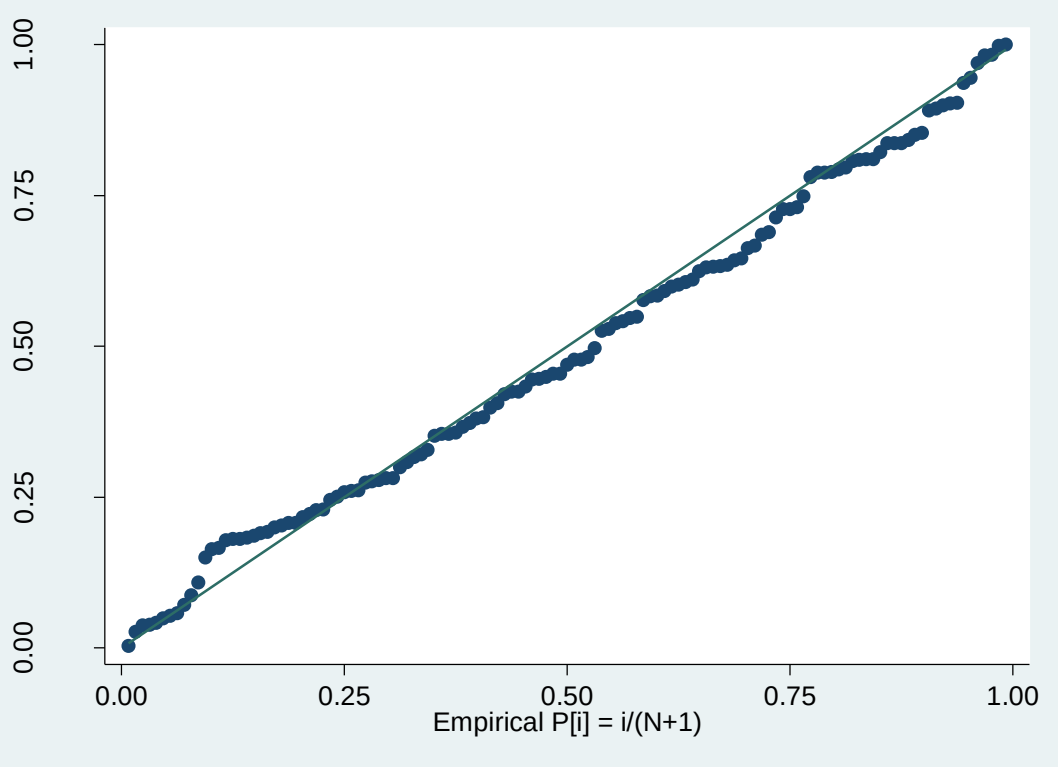
------------------------------------------------------------------------------
    polscalr |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
  telephones |   .0785315   .0272855     2.88   0.005     .0239885    .1330745
 gdppcgrowth |    .545771   .2248105     2.43   0.018     .0963812    .9951608
   inflation |  -.0018291   .0027301    -0.67   0.505    -.0072864    .0036282
   electoral |  -3.707439   1.320212    -2.81   0.007     1.068372    6.346505
     polfree |  -.3059243   .2335906    -1.31   0.195    -.1610167    .7728652
    ethnicfr |  -.6455919   1.585833    -0.41   0.685    -3.815626    2.524443
    religiou |   3.084661   1.440137     2.14   0.036     .2058676    5.963455
       _cons |  -1.730206   2.843986    -0.61   0.545    -7.415253    3.954842
------------------------------------------------------------------------------
```



```
. reg  indinc7 telephones gdppcgrowth inflation electoral polfree ethnicfr
religiou

      Source |       SS       df       MS              Number of obs =      64
-------------+------------------------------           F(  7,    56) =    3.50
       Model |   358.32608     7    51.18944           Prob > F      =  0.0035
    Residual |  818.403777    56  14.6143532           R-squared     =  0.3045
-------------+------------------------------           Adj R-squared =  0.2176
       Total |  1176.72986    63  18.6782517           Root MSE      =  3.8229

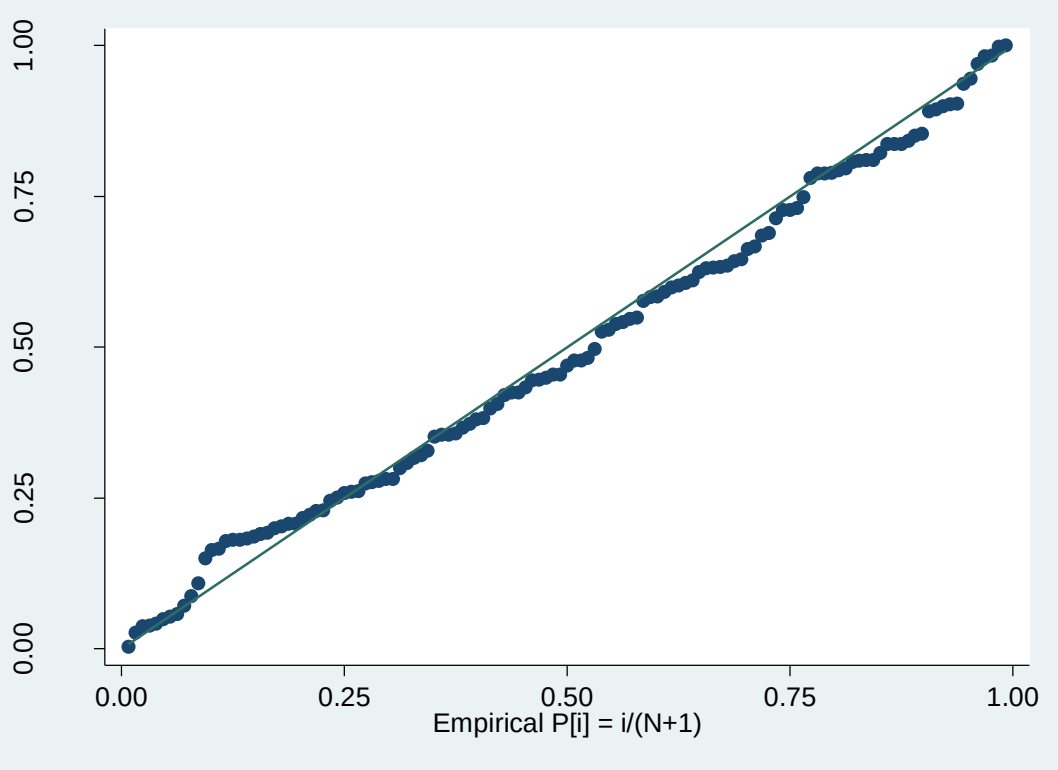
------------------------------------------------------------------------------
     indinc7 |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
  telephones |   .1160359   .0422893     2.74   0.008     .0313203    .2007514
 gdppcgrowth |   .4464773   .2909465     1.53   0.131    -.1363585    1.029313
   inflation |  -.0038011   .0040633    -0.94   0.354    -.0119408    .0043386
   electoral |  -2.242316   1.964795    -1.14   0.259    -1.693641    6.178273
     polfree |  -.4429301   .3416869    -1.30   0.200    -.2415509    1.127411
    ethnicfr |   -1.51975   2.400437    -0.63   0.529    -6.328403    3.288904
    religiou |   3.290731   2.193198     1.50   0.139    -1.102773    7.684234
       _cons |    .656409   4.212879     0.16   0.877    -7.783001    9.095819
------------------------------------------------------------------------------
```



```
. reg  compe2 telephones gdppcgrowth inflation electoral polfree ethnicfr
religiou

      Source |       SS       df       MS              Number of obs =      65
-------------+------------------------------           F(  7,    57) =    3.17
       Model |  364.831732     7  52.1188189           Prob > F      =  0.0066
    Residual |   936.53687    57  16.4304714           R-squared     =  0.2803
-------------+------------------------------           Adj R-squared =  0.1920
       Total |   1301.3686    64  20.3338844           Root MSE      =  4.0535

------------------------------------------------------------------------------
      compe2 |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
  telephones |   .0998473   .0433495     2.30   0.025     .0130414    .1866532
 gdppcgrowth |   .2948425   .3190782     0.92   0.359    -.3441005    .9337855
   inflation |   .0010265   .0045252     0.23   0.821    -.0080352    .0100881
   electoral |  -.0783502   2.642224    -0.03   0.976    -5.212612    5.369312
     polfree |  -.1397162   .4112621    -0.34   0.735    -.6838219    .9632543
    ethnicfr |   .8389181   2.779507     0.30   0.764    -4.726949    6.404785
    religiou |   6.987476   2.481938     2.82   0.007     2.017481    11.95747
       _cons |   3.940978   5.303531     0.74   0.460    -6.679159    14.56111
------------------------------------------------------------------------------
```



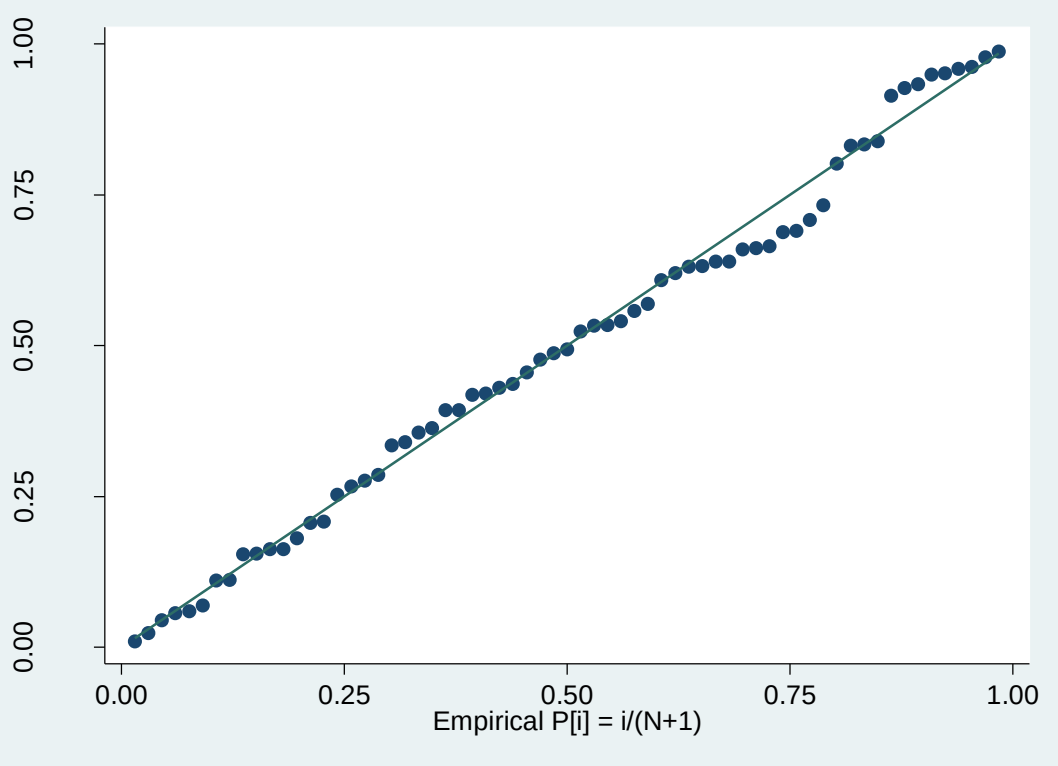
Appendix 6. Regression Logs and Scatter Plots of Residuals: Social Mobilization

```
------------------------------------------------------------------------------

. reg membership telephones gdppcgrowth inflation electoral polfree ethnicfr
religiou

      Source |       SS       df       MS              Number of obs =      33
-------------+------------------------------           F(  7,    25) =    2.04
       Model |  9477.23601     7  1353.89086           Prob > F      =  0.0900
    Residual |  16618.9908    25  664.759631           R-squared     =  0.3632
-------------+------------------------------           Adj R-squared =  0.1849
       Total |  26096.2268    32  815.507087           Root MSE      =  25.783

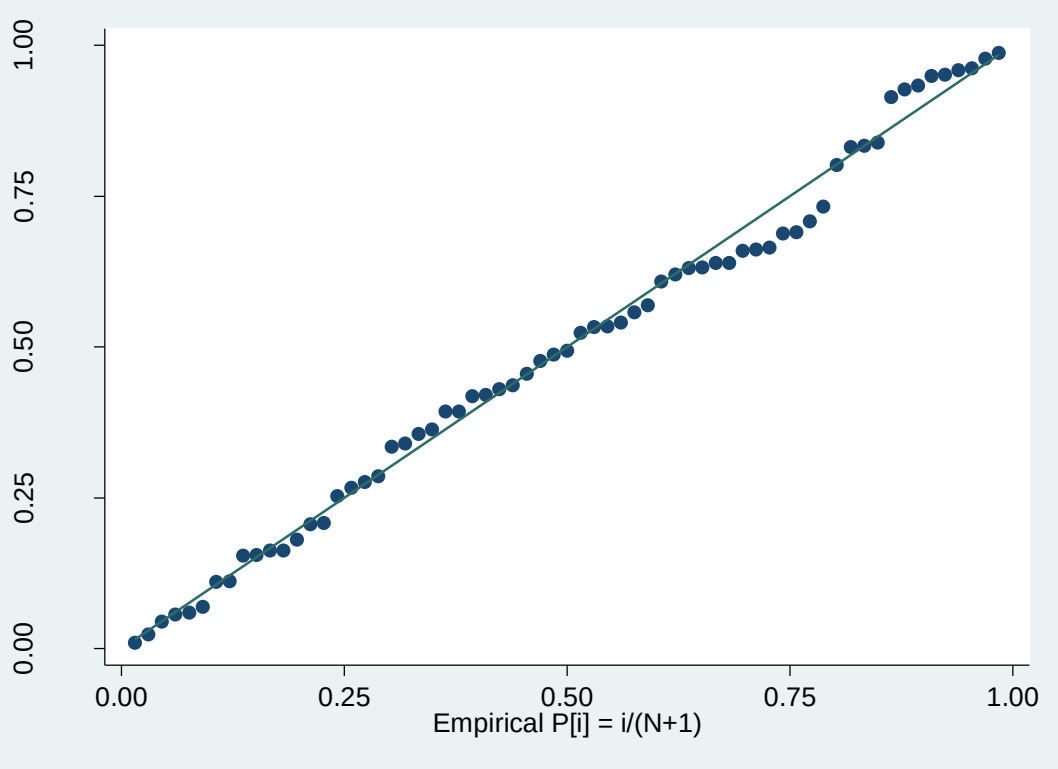
------------------------------------------------------------------------------
  membership |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
  telephones |   .3390041   .4013921     0.84   0.406    -.4876783    1.165686
 gdppcgrowth |   -5.83965   3.922751    -1.49   0.149    -13.91871    2.239407
   inflation |   .0835261   .0544407     1.53   0.138    -.0285967    .1956488
   electoral |   17.85325   27.21342     0.66   0.518    -73.90035    38.19385
     polfree |   1.752509   4.295318     0.41   0.687    -10.59888    7.093863
    ethnicfr |  -25.96234   27.38644    -0.95   0.352    -82.36578     30.4411
    religiou |  -48.51998   25.98339    -1.87   0.074    -102.0338    4.993811
       _cons |   79.91507    55.6164     1.44   0.163    -34.62905    194.4592
------------------------------------------------------------------------------
```



```
. reg membership telephones gdppcgrowth inflation electoral polfree ethnicfr
religiou, robust

Linear regression                                      Number of obs =      33
                                                       F(  7,    25) =    4.05
                                                       Prob > F      =  0.0043
                                                       R-squared     =  0.3632
                                                       Root MSE      =  25.783

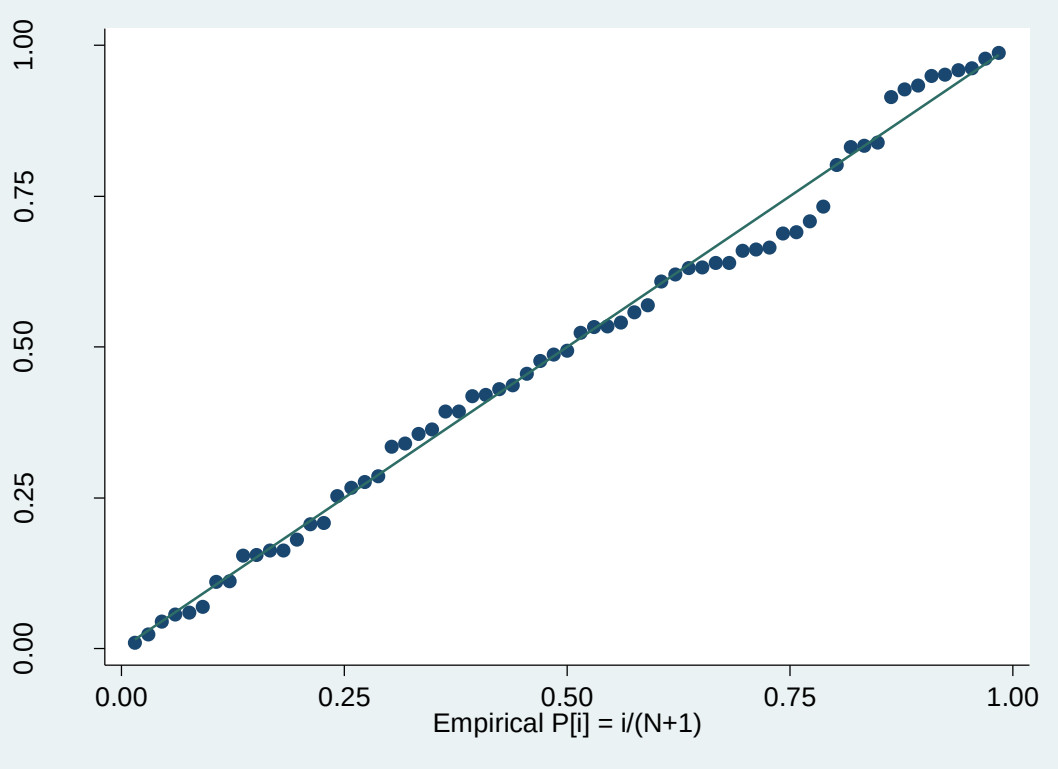
------------------------------------------------------------------------------
             |               Robust
  membership |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
  telephones |   .3390041   .3425703     0.99   0.332    -.3665326    1.044541
 gdppcgrowth |   -5.83965   4.029954    -1.45   0.160     -14.1395    2.460195
   inflation |   .0835261   .0249326     3.35   0.003     .0321765    .1348756
   electoral |   17.85325   21.20903     0.84   0.408    -61.53407    25.82757
     polfree |   1.752509   3.895137     0.45   0.657    -9.774694    6.269676
    ethnicfr |  -25.96234   20.66349    -1.26   0.221     -68.5196    16.59492
    religiou |  -48.51998   16.44081    -2.95   0.007    -82.38047   -14.65949
       _cons |   79.91507    44.0924     1.81   0.082    -10.89493    170.7251
------------------------------------------------------------------------------
```



```
. reg bargain telephones gdppcgrowth inflation electoral polfree ethnicfr
religiou

      Source |       SS       df       MS              Number of obs =      30
-------------+------------------------------           F(  7,    22) =    4.48
       Model |  17033.0995     7  2433.29993            Prob > F      =  0.0031
    Residual |  11961.5166    22  543.705299            R-squared     =  0.5875
-------------+------------------------------           Adj R-squared =  0.4562
       Total |  28994.6161    29  999.814348            Root MSE      =  23.317

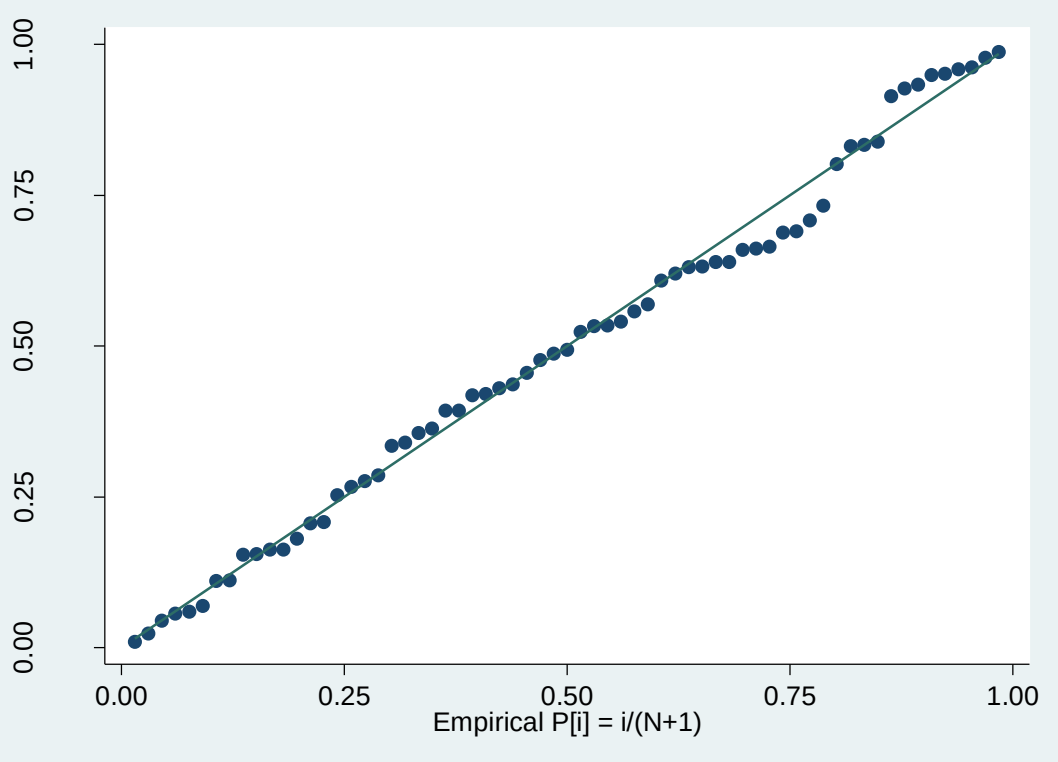
------------------------------------------------------------------------------
     bargain |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
  telephones |   .8906066   .3633628     2.45   0.023     .1370382    1.644175
 gdppcgrowth |  -11.88307    4.59112    -2.59   0.017    -21.40447    -2.36167
   inflation |   .0307059   .0737582     0.42   0.681    -.1222592     .183671
   electoral |   -.830116   39.02003    -0.02   0.983    -80.09248    81.75271
     polfree |  -1.655216   4.541879    -0.36   0.719    -7.764065     11.0745
    ethnicfr |  -45.77522   26.31126    -1.74   0.096    -100.3414    8.790986
    religiou |  -48.49479    23.8538    -2.03   0.054    -97.96453    .9749548
       _cons |    58.4201    64.7762     0.90   0.377    -75.91752    192.7577
------------------------------------------------------------------------------
```



```
. reg bargain telephones gdppcgrowth inflation electoral polfree ethnicfr
religiou, robust

Linear regression                               Number of obs =      30
                                                F(  6,    22) =       .
                                                Prob > F      =       .
                                                R-squared     =  0.5875
                                                Root MSE      =  23.317

------------------------------------------------------------------------------
             |               Robust
     bargain |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
  telephones |   .8906066   .3516508     2.53   0.019     .1613275    1.619886
 gdppcgrowth |  -11.88307   4.191308    -2.84   0.010    -20.57531   -3.190829
   inflation |   .0307059    .068203     0.45   0.657    -.1107385    .1721503
   electoral |   -.830116   31.19184    -0.03   0.979     -63.8578    65.51803
     polfree |  -1.655216    5.05303    -0.33   0.746    -8.824128    12.13456
    ethnicfr |  -45.77522   22.62912    -2.02   0.055    -92.70514    1.154692
    religiou |  -48.49479   20.41043    -2.38   0.027    -90.82344   -6.166138
       _cons |    58.4201   58.63799     1.00   0.330    -63.18765    180.0278
------------------------------------------------------------------------------
```



Appendix 7. Selected Nationality Laws

Country	Main Principle to Confer Citizenship circa 1985	Key rules to confer citizenship to a child
Sweden	*Jus sanguinis*	A child acquires Swedish citizenship at birth if • the child's mother is a Swedish citizen (Swedish mothers have only been able to pass on their citizenship since the July the 1st ,1979), • the child's father is a Swedish citizen and is married to the child's mother, • the child's father is a Swedish citizen, the child is born out of wedlock, and the child is born in Sweden.
Norway	*Jus sanguinis*	A child acquires Norwegian citizenship at birth if: • the father is a Norwegian citizen, • the mother is a Norwegian citizen. Since September the 1st, 2006, the law no longer requires the father to be married to the mother.
Denmark	*Jus sanguinis*	A child acquires Danish citizenship at birth if: • the child's mother is a Danish citizen, • the child`s father is a Danish citizen, • at least one of the parents must have been born in Denmark, • the child is adopted by Danish citizens before the age of 12 years old. •
Belgium	*Jus sanguinis*	A child acquires Belgian citizenship at birth if: • the child's mother is a Belgian citizen, • the child's father is a Belgian citizen, • the child is born in Belgium, • the child is born outside Belgium, to a father who is a Belgian citizen, • the child is born outside Belgium to a mother who is a Belgian citizen that was born in Belgium or in Belgian Congo before 30 June 1960 or in Rwanda or Burundi before 1 July 1962.
Netherlands	*Jus sanguinis*	A child acquires Dutch citizenship at birth if: • the child's mother is a Dutch citizen, • the child's father is a Dutch citizen and the parents are married, • the child's mother is a Dutch citizen and the parents are not married.
Austria	*Jus sanguinis*	A child acquires Austrian citizenship at birth if: • the child's mother or father is an Austrian citizen and the parents are married. For children born before January the 9th, 1983, the father must have been an Austrian citizen; children born to an Austrian mother married to a non-Austrian father do not qualify.
Switzerland	*Jus sanguinis*	A child acquires Swiss citizenship at birth if: • the child's mother or father is a Swiss citizen and parents are married, • the child's mother is a Swiss citizen and parents are not married.
Finland	*Jus sanguinis*	A child acquires Finnish citizenship at birth if: • the child's mother is a Finnish citizen, • the child's father is a Finnish citizen and the parents are married,

		• the child's father is a Finnish citizen, the child is born out of wedlock, and paternity has been established, • the child's father who died before the child was born was a Finnish citizen and who was married to the child's mother at the time of his death, • the child's father, who died before the birth of the child, was a Finnish citizen and the child was born in Finland out of wedlock and the father's paternity was established.
Germany	*Jus sanguinis*	A child acquires German citizenship at birth if: • the child's father is a German citizen (**Before January the 1st , 1975),** • the child's mother or father is a German citizen (**After January the 1st , 1975)**
France	*Jus soli*	• Children born in France to at least one parent who is also born in France, automatically acquire French citizenship.
Japan	*Jus sanguinis*	A child acquire Japanese citizenship at birth if: • the child's mother or father is a Japanese citizen at the time of birth, • the child's father dies before the birth and is a Japanese citizen at the time of death.
Italy	*Jus soli* *Jus sanguinis*	A child acquires Italian citizenship at birth if: • is born on Italian territory to stateless parents or to unknown parents or to parents who cannot transmit their nationality; this is partially consistent with the principle of jus soli, • by filiation (birth to an Italian parent); this is consistent with the principle of jus sanguinis, • by paternal/maternal acknowledgment or legitimation.
United Kingdom	*Jus soli*, *Jus sanguinis*	A child acquires British citizenship at birth if: • the child's mother or father is a British citizen or 'settled' in the UK, • the child is born outside the UK after 1 January 1983 will automatically acquire British citizenship by descent if either one of the parents is a British citizen otherwise than by descent at the time of the birth.
Ireland	*Jus soli*	A child acquires Irish citizenship at birth if: • is born in Irish territory, • is born in Irish territory and he or she is not entitled to citizenship of any other country.
Canada	*Jus soli*	• Everyone born in Canada acquires Canadian citizenship at birth.
New Zealand	*Jus soli*	A child acquires New Zealand citizenship if: • is born in New Zealand, except children of foreign diplomats, • at least one parent is a New Zealand citizen or permanent resident (including Australian citizens), • is born to a parent who is a permanent resident of the Cook Islands, Tokelau or Niue.
United States	*Jus soli*	A child acquires U.S. citizenship at birth if: • is born in the United States, • has parents that are subjects of a foreign power, but not in any diplomatic or official capacity of that foreign power,

		• has parents that have permanent domicile and residence in the United States, • has parents that are in the United States for business.
Australia	*Jus soli*	A child acquires Australian citizenship if: • the child's mother or father is an Australian citizen or permanent resident, • the child`s mother or father is not an Australian citizen, but the child has born and lives in the country until his or her 10th birthday.

Sources: for Sweden:http://www.migrationsverket.se/info/start_en.html; for Norway: http://www.udi.no/Norwegian-Directorate-of-Immigration/; for Denmark: http://www.nyidanmark.dk/en-US/citizenship/; for Belgium: http://diplomatie.belgium.be/en/; for Netherlands: http://www.minbuza.nl/en; for Austria: http://www.coe.int; for Switzerland:http://www.eda.admin.ch/eda/en/home.html; for Finland:http://www.migri.fi/netcomm/Default.asp?language=EN; for Germany:http://www.auswaertiges-amt.de/diplo/en/Startseite.html; for France: http://www.immigrationcitizenship.eu/2005/12/french-citizenship.html; for Japan: http://www.moj.go.jp/ENGLISH/index.html; for Italy:http://www.esteri.it/MAE/EN/Ministero/Servizi/Sportello_Info/DomandeFrequenti/Cittadinanza/; for United Kingdom: http://www.ukba.homeoffice.gov.uk/britishcitizenship; for Ireland: http://www.dfa.ie/home/index.aspx; for Canada: http://www.cic.gc.ca/english/index.asp; for New Zealand: http://www.dia.govt.nz/; for the United States: http://www.uscis.gov/portal/site/uscis; for Australia: http://www.citizenship.gov.au.