Minimum Income Schemes

in Federal Countries

An exploratory analysis of the relationship between the degree of centralization,

mobility, benefit levels, effectiveness and efficiency

Nadine Langerak

Master thesis

Utrecht University

Social Policy and Social Interventions

1 July 2013

Course: Master Thesis

Date: 01-07-2013

First supervisor: Marcel Hoogenboom

Second supervisor: Trudie Knijn

Student: Nadine Langerak

Student number: 3691039

Acknowledgements

This thesis is my final product of the Master Social Policy and Social Interventions at Utrecht University. As part of my thesis, I had the opportunity to do my internship at the European Social Observatory in Brussels, Belgium. This research institute analyzes the interplay between European level decision-making and Member States' social policies. It provided me a valuable first-hand experience of European politics and the social dimension of the European Union. During my internship I was involved in a project called the European Minimum Income Network. The project initiated an interest in minimum incomes from a comparative perspective and it became the starting point of this study.

I would like to thank the European Social Observatory for allowing me to do my internship there. I am very grateful to Bart Vanhercke for his time to tutor me during the internship. Furthermore I would like to thank Marcel Hoogenboom for all of the feedback he provided during the course of the Master thesis. The conversations we had on my thesis and the advice he gave me really helped me to develop a clear direction in my research and to structure my thesis accordingly. As well I am thankful to my peer group, Irene van Welten, George Giannakopoulos and Nebojsa Martinovic. Each of them took the effort to get familiar with the topic of my thesis and to provide me with valuable comments. Lastly I want to express my gratefulness to my family and friends for their support. Especially I want to thank my boyfriend Jochem van den Broek for his interest during the entire process.

Nadine Langerak
Amsterdam, 1 July 2013

Table of contents

Summary

At EU level initiatives are being developed which suggest a movement towards centralization of minimum incomes. To understand whether minimum incomes are best to be organized central or de-central, the relation between the degree of centralization and mobility, benefit levels, effectiveness and efficiency are analyzed. The cases for which this relation was studied were federal countries. The reasoning behind this choice was the resemblance of the European Union with a federation. Cluster analysis is used to classify the countries according to their similarities and differences on the variables. Cluster analysis provides a quantitative instrument for a study with a small number of cases. By comparing the clusters of the variables, we are able to determine whether a decentralized or centralized set-up of minimum incomes is indeed accompanied by those characteristics as is suggested in the theoretical framework.

The results show that with regard to the degree of centralization a distinction can be made between those with a predominantly decentralized organization of minimum incomes (Spain, Italy, Switzerland, USA, EU and Austria), those with centralized set-ups (Australia and Germany) and a final group which have some minimum income authorities organized central and others de-centrally (Canada and Belgium). However, a comparison of these clusters with the clusters of mobility, benefit levels, effectiveness and efficiency, revealed little correspondence. None of the formulated hypotheses could be accepted, which lead to the conclusion that the empirical findings of this study indicate that the variables are not related. The results did therefore not provide an answer as to whether minimum incomes are preferably organized at the central or de-central level. However, because of the lack of suitable data more research on this topic is recommended.

Key words: Minimum incomes, redistributive set-ups, degree of centralization, mobility, benefit levels, effectiveness, efficiency, federal countries.

Chapter 1 – Introduction

Interest for minimum incomes at European level has increased significantly the last years (Crepaldi, Gambiono, Baldi, Da Roit & Ortigosa, 2007; Hölsch & Kraus, 2006). At 3 October 2008 the European Commission (EC) announced their Communication on the active inclusion of people who are excluded from the labour market (European Commission, 2008). Building on the European Council's recommendation of 1992, the EC argued that Member States should recognize individuals' right to social assistance in order to prevent social exclusion (European Commission, 2008). The role of minimum incomes in fighting poverty and social exclusion was formalized by the European Parliament in 2010. It was then stated that minimum incomes are not just an important instrument to enhance social inclusion, but as well to ensure solidarity and to strengthen consumer consumption, which are important topics in times of crisis (European Parliament, 2010). A more recent development is the Social Investment Package (SIP) (European Commission, 2013a). The EC underlines in the SIP that it will set up initiatives to monitor the adequacy of minimum income schemes in the European Union (EU). One of these initiatives is the European Minimum Income Network (EMIN). The EMIN is a two year project (2013-2014) and aims at creating agreement among EU Member States on the steps that have to be taken to develop effective and efficient MIS (EMIN, 2013).

Besides an increased emphasis on minimum incomes at European level, the latest initiatives of the EC seem to suggest a movement towards centralization of the EU within this area. Contemporary scholars have not yet found consensus as to whether this should be perceived positive or not (Razin & Wahba, 2011; Sinn & Ochel, 2003). Traditional theories on centralization and decentralization of income redistribution suggest that decentralized systems encourages benefit migration (Samuelson, 1954; Tiebout, 1956). Within a Single Market poor citizens are expected to move to states with high benefit levels. Those in favor of centralization of social benefits argue that due to the increased tax burden of these regions, local governments might choose to lower benefit levels to cut expenditures (Samuelson, 1954). Lower benefit levels could decrease the effectiveness of the schemes which results in more poverty (Fiva, 2006; Hölsch & Kraus, 2006). On the contrary, those in favour of decentralization suggest that local governments have more information on the demands of the people which implies that a decentralized organization of minimum incomes is more efficient (Hölsch & Kraus, 2006; Wildasin, 1991). In short, a centralized or decentralized set-up of minimum incomes seems to

be related to mobility, benefit levels, effectiveness and efficiency. However, it remains unclear whether minimum incomes should be organized central or de-central. Empirical observations on the relation between these variables are lacking.

To be able to assess whether centralization of European minimum incomes is preferable, a comparison can be made between the EU and federal countries. It has been argued that with the move to a Single Market, the EU increasingly seems to resemble a federation (Finsen, 2011; Sinn, 1994; Wildasin, 1991). Like a federal country the EU is comprised of a single market in which goods and persons are mobile. Furthermore, like some federal countries, the EU system entails different jurisdictions, the Member States, who have legislative authority on minimum incomes schemes and who are responsible for the distribution of minimum incomes (Wildasin, 1991). Hence the EU could be compared with a federal system in which minimum incomes are organized in a decentralized manner (Sinn, 1994; Wildasin, 1991). Because of the resemblances between the EU and federal countries, it would be valuable to have a look at how federal countries have organized their minimum incomes. The aim of this study is to analyze how a centralized or decentralized set-up of minimum incomes in federal countries is related to mobility, benefit levels, effectiveness and efficiency. This might provide us with an answer to the following question: Can we find an answer in the organization of MIS in federal countries as to whether minimum incomes should be centralized or decentralized within the EU?

1.1 Scientific and social relevance

As explained in the introduction, the available literature on the organization of minimum incomes provides arguments for both the centralization and decentralization of minimum incomes. However, there are no empirical observations that suggest which option is preferable. This study could provide important insights into the relation between a centralized and decentralized set-up of minimum incomes and mobility, benefit levels, effectiveness and efficiency. Therefore gaining scientific knowledge on minimum income schemes of federal countries is of great value. The results could contribute to the literature on federalism and the welfare state from a comparative welfare state perspective. The social relevance of this study becomes clear by the increased importance for minimum incomes in Member States and at EU level. Moreover, there seems to be a movement towards centralization of minimum incomes. Understanding how the set-up of MIS in federal countries is related to certain characteristics could provide important insights for policy makers at local, national and EU level.

1.2 Interdisciplinary character of the research

The research for this study is conducted as part of the Master degree Social Policy and Social Interventions at Utrecht University. The interdisciplinary character of this thesis becomes apparent by the use of insights from economy (more specific public finance), sociology and political science. In the theoretical exploration of this thesis, political science literature is used to understand federalism and the institutional settings with regard to income redistribution. Literature on public finance is used to become aware of the dynamics between centralization and decentralization of income redistribution and the variables of our interest. The sociological content of this study becomes clear by the fact that it focuses on human institutions and the effects of these institutions on human well-being and human relations. As well this study could be placed in the research domain comparative welfare state research, which is in itself interdisciplinary.

1.3 Structure

This thesis is organized as follows: Firstly the theoretical framework will be described (chapter two). Within this chapter literature on minimum incomes and the organization of social policies are described. At the end of the theoretical framework the hypotheses are summarized and the research questions are formulated. Moreover, a conceptual model is displayed for analytical purposes. In chapter three the research design is elaborated. Besides a description of the methodology, the variables are operationalized and the validity and reliability of the study are analyzed. Due to the exploratory character of this study and the small amount of cases, cluster analyses is used to explore the relation between the variables. In chapter four, the results of the analyses are described. Lastly in the concluding chapter (chapter five) the research questions will be answered and discussed.

Chapter 2 – Theoretical Exploration

This chapter provides the theoretical framework of this research. Firstly we look at existing literature on minimum incomes and on the purpose of these benefits. Thereafter we have a closer look at the organization of minimum incomes and those aspects which are suggested by the literature to be related to a centralized or decentralized set-up of minimum incomes. Lastly a conclusion of the theoretical framework is provided with which a conceptual model and the research questions of this study are derived.

2.1 Minimum incomes

The interest of this study is in means-tested cash benefits for people of working age (15 to 64 years) which are provided by governments on a non-contributory basis to guarantee a minimum standard of living for those whose income is insufficient. In this study these are called minimum incomes and the organization of such is called a minimum income scheme (MIS). This corresponds to the terminology used at EU level (Crepaldi et al., 2007; Frazer & Malier, 2009) and by social scientists (Eardley, Bradshaw, Ditch, Gough & Whiteford, 1996). However, other definitions have been used which refer to the same concept. Social assistance for example is a commonly used definition. By some social assistance refers to the general minimum income benefit provided by governments and by others it entails the total package of means-tested benefits (Gough, Bradshaw, Ditch, Eardley & Whiteford, 1997; Nelson 2008). The reasoning behind this broader definition is that means-tested housing, family or child benefits play significantly larger roles in some countries than in others (Bradshaw & Finch, 2002). To exclude these from a study focused on minimum income protection implies that the results of the research will not portray the actual empirical situation (Gough et al., 1997). Therefore, within this study MIS, as well as social assistance, are understood as the total package of minimum income benefits.

2.2 The purpose of minimum incomes

Minimum incomes find their roots in the development of poor relief. Historically poor relief was provided by churches and charity and the state did not interfere. The first steps towards institutionalized public welfare were made with the British Poor Law in 1601. However, it

lasted till 1948 before the foundations for minimum incomes were realized in England by the National Assistance Act (Figaro, Matsaganis & Sutherland, 2012). Most Western countries only developed their minimum income protection during the second part of the twentieth century (Barr, 2004), but nowadays almost every country has some sort of MIS for those in society that do not have a job and no social security. However, there are great differences between and within countries with regard to the height, the conditionality and the duration of these minimum incomes (Bradshaw and Finch, 2002; Figaro et al., 2012; Gough et al., 1997). Like poor relief, minimum incomes are designed to prevent inequality and poverty among citizens (Figaro et al., 2012). That explains why they are also called targeted benefits as opposed to universal benefits. They are targeted on a particular part of the population, namely the poor, to create the so called safety-net (Korpi and Palme, 1998). At EU level, the purpose of MIS is, besides alleviating poverty, as well to decrease and prevent social exclusion (EAPN, 2013; Eurostat, 2010). This refers to exclusion from participation in society (European Council, 2004).

It is suggested that there is a discrepancy between the importance given by national governments to minimum incomes in comparison to that given by the scientific world (Gough et al, 1997; Madama, 2013; Nelson, 2009). In the social sciences attention was more on social security the last two decades and therefore on benefits which are composed out of income contributions (Gough et al, 1997; Korpi & Palme, 1998; Madama, 2013). On the contrary, in most countries minimum incomes became an important topic on the political agenda the past twenty years (Nelson, 2009). In the literature different causes are mentioned for the increased attention of governments for MIS. Firstly, the economic recession of the early 1990s is mentioned as an explanation. MIS are closely linked to other benefits like for instance unemployment benefits. After unemployment benefits end, one frequently becomes eligible for a minimum income, which explains that a rise in unemployment results in a rise of minimum income recipients (Hölsch & Kraus, 2004). Other explanations are more structural. Nelson (2009) argues that the distribution of market income has changed which caused that more citizens need a minimum income to have a minimum standard of living. This could be explained by the transition of society to a post-industrial society in which flexibilization of the labour market caused that less people can rely on social security and therefore have to reside on minimum incomes when their income turns out to be insufficient (Bonoli, 2005). Lastly, processes of neo-liberal ideology are seen as causes for increased attention for minimum incomes. An emphasis on individual responsibility and low-income targeting due to rising costs

of the welfare state in general have been used to redefine social responsibilities between state, market and individual (Nelson, 2009; Morel, Palier & Palme, 2012).

2.3 Degree of centralization

Now we understand what minimum incomes are and what they are intended to do, let us have a look at how minimum incomes are organized. Fiscal federalism is a research area within public finance that studies at what level public goods and services should be organized and the instruments that should be used (Lee, 1998; Röhrs & Stadelmann, 2010). Within this field there is a slight consensus on assistance to the poor specifically, which is thought to be best organized at the national level. However empirical evidence shows that countries do not portray this agreement because there are great differences with regard to the levels of government that are involved in providing minimum incomes (Obinger, Leibfried & Castles, 2005; Oates, 1999; Röhrs & Stadelmann, 2010). An explanation for these differences has not yet been developed. Political scientists have showed little interest in the welfare side of federal states and welfare state scholars have paid little attention to 'the differences in welfare state development in decentralized and centralized polities' (Obinger et al., 2005, p. 1).

The available studies that do look at the government structure of MIS define a degree of centralization. This degree of centralization is constructed by either determining which government levels have administrative and legislative authority on minimum incomes (Gough et al., 1997) or by looking at the legislative and financial authority and the differences in benefit levels within countries (Hölsch & Kraus, 2006). Hölsch and Kraus (2006) argue that the administrative authority does not have to be taken into account because this is for all of their cases organized at the local level. However, their study is not aimed at federal countries in particular. Furthermore, to use the differences in benefit levels as an indicator for the degree of centralization does not seem appropriate in this study. As highlighted in the introduction, great differences of benefit levels are thought to be related to a decentralized system, but because of the lack of empirical findings this does not have to be the case.

To conclude I argue that the degree of centralization contains three dimensions: the legislative, financial and administrative authority. These responsibilities can take place at three levels: the local, regional or national level. As has been stated in the introduction, a centralized or

decentralized set-up of minimum incomes is thought to be related to mobility, benefit levels, effectiveness and efficiency. In the following paragraphs the relation between the degree of centralization and these variables will be explored more thoroughly.

2.4 Mobility

Looking firstly at mobility between countries, different social sciences have studied international migration, but a comprehensive migration theory that incorporates the different theoretical perspectives has not yet been developed successfully (De Haas, 2006). Until the 1980s neo-classical and historical-structural views have dominated. Whereas neo-classical economic theory explains at macro-level that migration results from geographical differences in the supply and demand for labour (Harris & Todaro, 1970), the historical-structural paradigm with Marxist roots argues that migration is the result of an unequal distribution between economic and political powers between developed and underdeveloped countries as result of capitalist economy (De Haas, 2006). These theories are also known as push-pull theories. The push factors are those factors of the sending countries of migrants that push people to migrate and the pull factors are the factors of the migrant receiving countries that pull migrants to these countries (De Haas, 2006). Among the recipients of minimum incomes foreign migrants are relatively more often dependent on MIS than native citizens (Giorgi & Pellizzari, 2006; Razin & Wahba, 2011). For instance, in 2009 in the Netherlands 110 out of 1000 non-western citizens were minimum income recipient compared to 17 out of 2000 native Dutch (CBS, 2009). Observations like these resulted in the assumption that the generosity of the welfare state might be a pull factor for people to move to countries. This is also called the welfare magnet hypothesis (Giorgi & Pellizzari, 2006; Meyer, 2000; Razin & Wahba, 2011). Furthermore the selectivity hypothesis predicts that the majority of labour migrants are low-skilled workers, because they do the jobs the native citizens do not want to do anymore. Of low-skilled workers it is expected that they will make more use of minimum incomes than the higher-skilled population (Giorgi & Pellizzari, 2006).

Within-country mobility can be defined as the flows of people from one region to another on a yearly basis and is also called interregional mobility (OECD, 2013). Traditional scholars on within-country mobility agree that decentralization leads to increased mobility or even welfare migration (Samuelson, 1954; Tiebout, 1954). Under the assumption of an open economy and full information, poor citizens will move to regions with high benefit levels and wealthy citizens

move to areas with low taxes (Gordon & Cullen, 2011; Wildasin, 1991). This has been called the free-rider problem, which entails the conception that citizens will try to avoid taxes, but at the same time they like to profit of benefits which have been paid by others. This has been used as an argument for those in favour of centralization of social policies (Samuelson, 1954).

In conclusion, mobility within countries is defined as interregional mobility which entails the annual population flows from one region to another. A loss of population due to migration results in a net negative flow. Consequently a net positive flow represents a rise of population due to migration in that year (OECD, 2013a). In view of the above the following hypothesis can be derived:

H(1): Countries with decentralized MIS portray higher numbers of interregional mobility than countries with centralized MIS.

2.5 Benefit levels

The second variable which is thought to be related to the degree of centralization of minimum incomes is the level of benefits. In countries with a decentralized government structure in which local governments have autonomy over minimum income protection, differences in benefit levels are likely. For example, local governments can take into account the cost conditions of public services and benefits, as well as local preferences of the people in setting benefit levels (Hölsch & Kraus, 2006; Wildasin, 1991). Under the assumption of benefit migration, local governments have to provide minimum incomes for an increasing number of welfare recipients. Within a Single Market federal states or local governments do not have access to monetary or exchange-rate powers and therefore have limited possibilities for macroeconomic control (Oates, 1999). As a result the tax burden of this area increases (Gordon & Cullen, 2011; Oates, 1999). Fiscal competition theory explains that due to the competitive pressures between local governments these governments might want to cut tax rates to attract businesses (Wildasin, 2006). Since minimum incomes are paid out of income taxes, the idea is that benefit levels will be lowered which possibly could lead to a race-to-the-bottom in tax and benefit levels (Dahlberg & Edmark, 2008; Fiva, 2006). Samuelson (1954) contents that state-intervention is called for to address this problem and therefore he advocates centralization of public services. On the contrary, arguments for decentralization are that due to the political pressures central governments face it is difficult for them to lower benefit levels, which would suggest

increasingly higher benefits in centralized polities than is necessary (Oates, 1999; Wildasin, 1991). The hypothesis which can be formulated with this paragraph:

H(2): Countries with decentralized MIS have lower benefit levels than countries with centralized MIS.

2.6 Effectiveness

The objective of income redistribution and minimum incomes more specifically is to reduce poverty and inequality. Whether minimum incomes succeed in this could be considered the effectiveness of MIS (Hölsch & Kraus, 2006). Under the assumption that decentralization indeed leads to local governments reducing their benefit levels, this would not be beneficial for those in need of minimum incomes (Dahlberg & Edmark, 2008). Therefore it is argued that decentralization leads to more inequality and poverty and centralization results in more effective MIS. The relation between the degree of centralization and redistributive outcomes is underlined in the work of Eardley et al. (1996) who argued that the degree of centralization is one of the causes of the differences between redistributive outcomes of social assistance. In their study they formulate a typology of social assistance regimes in which the degree of centralization was one of the variables. Eardley et al. (1996) state in their conclusion that the variation among countries with regard to the levels of government involved in the organization of social assistance leads to the question whether this variation could lead to differences in the performance of these schemes. However comparing the effectiveness of the different MIS is not part of their study.

Analyzing the effectiveness of MIS it is suggested that it is not sufficient to look at the inequalities of the income distribution after taxes and benefits, which is also referred to as the inequalities of household disposable income (Hölsch and Kraus, 2006). Solely looking at post-transfer inequalities could be misleading because this does not say anything about how much inequality is reduced. Therefore they argue that as well should be looked at the pre-transfer inequalities, the income distribution before taxes and benefits, which is referred to as the market income. The percentage reduction of inequality by benefits and taxes is called the redistribution effect (Hölsch & Kraus, 2006). The redistribution effect can be related to the reduction of poverty or income inequality. Inequality entails the entire income redistribution, while poverty concentrate on a specific part of the income redistribution, those below a certain threshold.

Hölsch and Kraus (2006) conclude that their results support partially the idea that countries with a high degree of centralization are more effective, and decentralized less. However they note that the results are not convincing enough to state a true relationship between these variables.

To conclude, the effectiveness of MIS is considered to be the ability of minimum incomes to reduce inequality and poverty. In this study a choice has been made to analyze income inequalities of countries to determine the effectiveness of MIS. In view of the above the following hypothesis can be derived:

H(3): Countries with decentralized MIS are less effective than countries with centralized MIS.

2.7 Efficiency

The last variable which is thought to be related to the degree of centralization is the efficiency of MIS. Whereas effectiveness looks at the extent to which the objectives of minimum incomes are realized, efficiency looks at the means with which these objectives are realized. In other words, efficiency addresses the expenditures on minimum income protection. It is thought that the competition between states due to decentralization will assure that local governments will be more efficient in their provision of public goods, because citizens would move away if they were not (Dahlberg & Edmark, 2008). As well, decentralization is deemed more appropriate for providing those services and goods which are only to be used by those in the same jurisdiction. State or local governments know the cost conditions of public services and benefits, as well local governments know the preferences of their people (Hölsch & Kraus, 2006; Wildasin, 1991). It is almost impossible for a central government to have the same information as local governments, as well the central government faces political pressures which makes it difficult for them to provide some jurisdictions with lower benefit levels than others (Oates, 1999; Wildasin, 1991). Differences in costs among jurisdictions and/or a certain heterogeneity in demands for social services indicate that MIS would be most efficient by decentralizing the provision of public goods (Oates, 1999; Wildasin, 1991).

Hölsch and Kraus (2006) find no connection between the degree of centralization and efficiency. Moreover, they find that Germany and Italy, which they consider to be very

decentralized, have low levels of efficiency. This is contrary to what is suggested by the literature. However they relied on old data (Eardley et al., 1996) and their study was not on federal countries specifically. In sum it can be stated that efficiency deals with the governments' expenditures on minimum income protection. The following hypothesis can be formulated:

H(4): Countries with decentralized MIS are more efficient and have therefore relatively lower expenditures on minimum incomes with regard to their effectiveness than countries with centralized MIS.

2.8 Conclusion

EU Member States have autonomy over the provision of minimum incomes. Hence minimum incomes are organized de-central in the EU. However, at European level there seems to be a movement towards centralization. Scholars have not yet found consensus on whether minimum incomes should be centralized or decentralized in the EU. Therefore the question was posed whether we can find an answer in the organization of MIS in federal countries on whether minimum incomes should be centralized or decentralized within the EU. The theoretical exploration provides an analysis of the literature on this topic. It became clear that differences can be expected in how the degree of centralization is related to mobility, benefit levels, effectiveness and efficiency. The following hypotheses were derived within the theoretical framework:

- *H(1): Countries with decentralized MIS portray higher numbers of interregional mobility than countries with centralized MIS.*
- *H(2): Countries with decentralized MIS have lower benefit levels than countries with centralized MIS.*
- *H(3): Countries with decentralized MIS are less effective and portray therefore larger income inequalities than countries with centralized MIS.*
- *H(4): Countries with decentralized MIS are more efficient than countries with centralized MIS.*

2.8.1 Conceptual model

To clarify the theoretical framework and the hypotheses a conceptual model is developed (Figure 1). In the conceptual model the relation between the variables becomes visible. The literature review suggests that a centralized organization of minimum incomes is related differently to the variables than a decentralized set-up. The aim of this study is to analyze if the degree of centralization is indeed related to the variables in the way suggested by the literature framework.
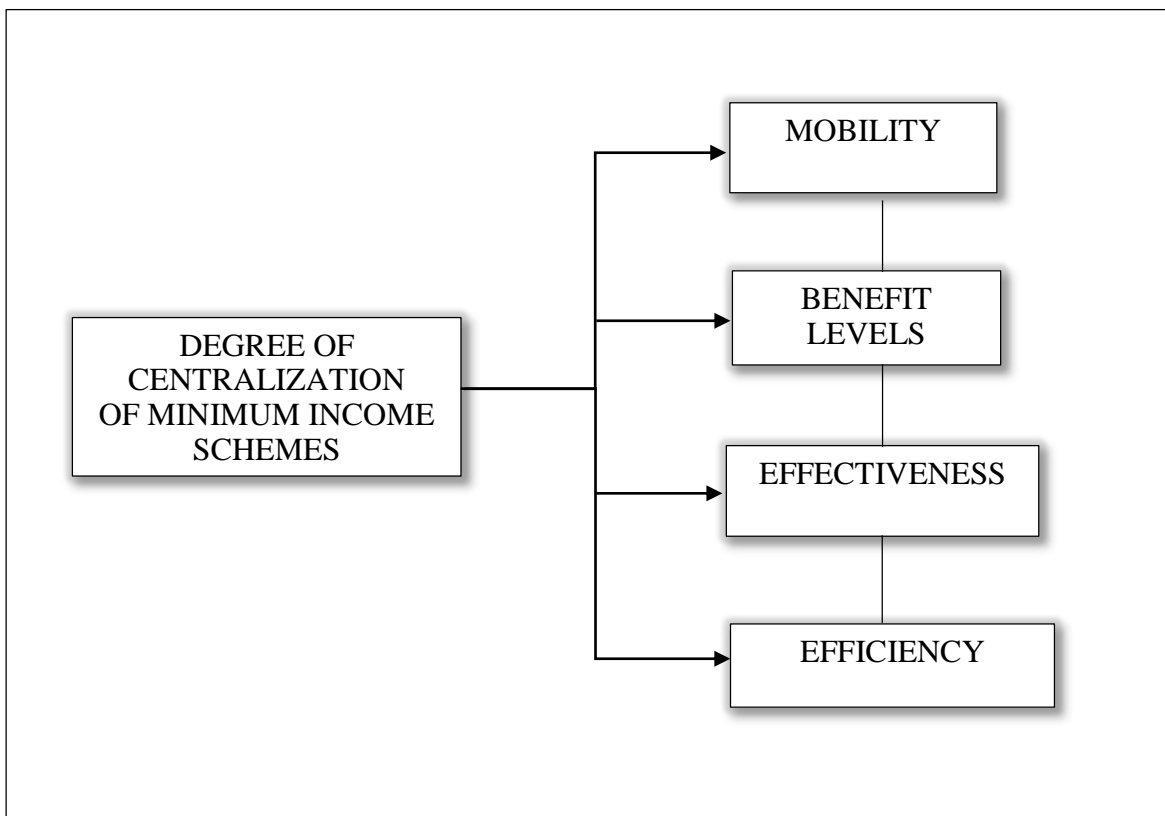

Figure 1: Conceptual Model

<u>2.8.2 Research questions</u>

Besides the suggested relations between the variables, the literature as well revealed that there are some shortcomings with regard to knowledge on minimum incomes, federalism and the welfare state, and the choice of countries to decentralize their MIS while it is suggested by the literature that centralized MIS are preferable. Furthermore in the light of the increased importance of minimum incomes at the European level, it would be interesting to empirically examine how MIS in federal systems differ from one another and to understand how the degree of centralization is related to the variables highlighted in the theoretical framework. Therefore I propose the following research question (RQ):

RQ: How are MIS in federal countries organized and how is the degree of centralization of MIS related to mobility, benefit levels, effectiveness and efficiency in these countries?

The sub questions (SQ) are:

- *SQ1: How are MIS organized in federal countries?*
- *SQ2: How can federal countries be classified with regard to the degree of centralization of MIS?*
- *SQ3: How is the degree of centralization related to mobility?*
- *SQ4: How is the degree of centralization related to benefit levels?*
- *SQ5: How is the degree of centralization related to effectiveness?*
- *SQ6: How is the degree of centralization related to efficiency?*

Chapter 3 – Research Design

This chapter will provide a description of the method which is deployed to provide an answer to the research questions. Moreover the variables which will be used for this research are operationalized, as well attention is given to the validity and reliability of the research.

3.1 Methodology

The first sub question is of a qualitative nature. To understand how the MIS of federal countries are organized, the EU's Mutual Information System on Social Protection (MISSOC) is used. This database provides useful qualitative information on the MIS of Member States (MISSOC, 2013). As well an analysis of policy documents, scientific literature and governments' websites has been carried out. This was necessary because MISSOC does not include countries outside of the EU. Moreover, terminology and content of MIS are constantly changing due to political decisions. This made existing studies on social assistance and federalism to a certain extent outdated (Gough et al., 1997; Obinger et al., 2005).

The remainder of the sub questions is analyzed with the use of cluster analysis. Classifying welfare states according to certain institutional settings has become popular the last two decades (Esping-Andersen, 1990). However, few studies have focused on classifying social assistance systems and hardly any took the degree of centralization of redistribution set-ups into account (Esping-Andersen, 1990; Hölsch & Kraus, 2006). Furthermore, quantitative methods are rarely used, because of the small number of observations that is typical in comparative welfare state research (Hölsch and Kraus, 2006). Gough (2001) and Kangas (1994) have suggested that cluster analysis provides a quantitative instrument which could be useful in small n studies. Cluster analysis is a descriptive instrument which groups cases by comparing multiple characteristics of these cases determined by a set of variables (Gough, 2001; Hölsch & Kraus, 2004). The differences and similarities of the cases on these variables determine the clustering of the cases into meaningful groups. Since our research is of an exploratory nature and we are interested in a small number of welfare states, cluster analyses is suitable as a method for our study. Cluster analysis provides different possibilities for data analysis, but commonly used to group the characteristics of data is the hierarchical cluster analysis (Gough, 2001; Hölsch & Kraus, 2004). With hierarchical cluster analysis the results will be portrayed in hierarchical tree

diagrams or so called dendrograms (Romesburg, 2004). With these dendrograms the clusters will become visible which will help to interpret the meaning of the results (Gough, 2001; Hölsch & Kraus, 2004; Norusis, 2013). In our case it will help us to assess the hypotheses to determine if the MIS set-ups of our federal countries indeed relate to the variables as is described in the theoretical approach. Hypothesis testing is one of the research goals for which cluster analysis can be used (Romesburg, 2004). Using cluster analysis for this purpose makes it an example of a hypothetico-deductive research method (Romesburg, 2004). Cluster analysis is a descriptive instrument and therefore no causal relations can be determined. However the use of this instrument will help us to explore the relationships between the variables of our interest. Furthermore it is an instrument which has been used by others to analyze the degree of centralization and minimum incomes (Gough, 2001; Hölsch & Kraus, 2004, 2006).

3.2 Operationalization variables

The variables used in this study are defined in the theoretical framework. The variables are the degree of centralization, mobility, benefit levels, effectiveness and efficiency. In this paragraph the variables are operationalized in order for them to be used in the cluster analysis.

3.2.1 Degree of centralization

As discussed in the previous paragraph, the degree of centralization consists of three dimensions: the legislative, financial and administrative authority. These will be the three indicators of the variable degree of centralization in this study. An authority can be at three levels, as distinguished by Eardley et al. (1996) and Hölsch and Kraus (2004), these are the local, state/provincial and the national level. Hölsch and Kraus (2004), establish the indicator 'legislative authority' by assigning the cases the values 1 to 5 which corresponds to: no nationwide MIS at all (1), regular benefit levels were established by local authorities (2), regional authorities or federal states (3), local or regional authorities were bounded through nationwide coordination (4) or benefit levels were established by the central government (5). With regard to value 1 it has to be underlined that according to Hölsch and Kraus (2006) Italy does not have a nationwide MIS. However, Gough et al. (1995) underline that there are local initiatives that provide local cash assistance in Italy. Therefore the Italian MIS can perhaps be considered very marginal but it cannot be said that there is no system at all. Furthermore it should be noted that within several federal countries the legislative authority is shared between different levels of government. This shared dimension is not present in the values suggested by

Hölsch and Kraus (2006). However, establishing a 'degree' of centralization suggests that shared authorities should be taken into account. In sum I conclude that for the three indicators the cases will be assigned the values 1 to 5 which corresponds to: local government (1), shared between local and regional government (2), regional government (3), regional/national government (4) and national government (5).

3.2.2 Mobility

Suleiman (2009) used the migration stock as one of the indicators in his cluster analysis on the characteristics of countries with regard to institutions, poverty and migration. According to the World Bank the International Migration Stock is the amount of people that were born in another country than the one in which they live (2013). However our interest is not in international migration, but in interregional migration. The OECD database on 'Population mobility among regions' provides data from 1995 to 2008 on 'yearly flows of population from one TL3 region to another TL3 region' (OECD, 2013). However the TL3 regions do not coincide with the state or regional levels of our degree of centralization, Belgium as a case is not included in the database and for Canada and Australia interregional mobility of TL2 regions is calculated, which makes comparison with the other cases less appropriate. Moreover, the regional mobility is not portrayed in percentages but every region is given a qualitative label (rare-out migration, intermittent out-migration, prevalent out-migration and persistent out-migration). Which seems invalid for the use within cluster analysis.

Due to the lack of a database on regional mobility the Institute for the Study of Labour (2008) used the European Labour Force Survey (EU-LFS) of Eurostat to calculate interregional mobility. The EU-LFS registers the country where people lived one year before the survey. Unfortunately EU-LFS does not contain figures of countries outside of the EU. The Institute for the Study of Labour states that it was difficult to retrieve data on interregional mobility for Canada and Australia. A problem for this research was to attain access to the EU-LFS. This was not possible, which explains why we had to rely on the figures presented in the above mentioned study for the year of 2008. This is obviously a weakness in the research design.

3.2.3 Benefit levels

To compare the benefit levels of the countries the Social Assistance and Minimum Income Protection Interim Data-Set (SaMip) of the Swedisch Institute for Social Research of Stockholm University is used (Nelson, 2007). It provides detailed information on the levels of

means-tested benefits up to 2009. The benefit levels are expressed in Purchasing Power Parity (PPP). Benefit levels in national currency are converted into a common monetary denominator, frequently US dollars to avoid differences in exchange rates. Therefore it proofs to be useful for studies aiming to compare benefit levels with each other (Eardley et al., 1996). SaMip provides different social assistance benefit levels. Single benefits, but as well aggregated averages in which for example as well housing benefits and tax credits are included. The choice has been made to compare the benefit levels of the variable MIPsi, which is the average monthly amount of minimum income protection for the single person household without children. This variable is the sum of the social assistance standard rate (SAsi), the housing supplement (HSUPPsi), the refundable tax credits (TCREDsi) and other benefits besides those above (OTHsi). According to Nelson (2009) the benefit levels of Italy have to be perceived with great caution. Expressed in PPPs they are extremely high, but many regions have no MIS at all. I chose to exclude Italy for this reason. Furthermore, the benefit levels of three years are used (2007-2009) to account for the stability of the results.

3.2.4 Effectiveness

There are different measures of inequality with which the effectiveness of social transfers can be calculated. The choice has been made to look at income inequalities instead of looking at poverty. Besides that minimum incomes are aimed at poor relief, they as well decrease income inequalities by assuring a minimum level of existence. One of the most known and used inequality measures is the gini-coefficient (Atkinson, 1970; Brakel-Hofmans, 2007). The Gini-coefficient is developed by the Italian statistical Corrado Gini in 1912 and takes all the incomes of a certain population into account. The values of the coefficient are between 0 and 1, at which 0 corresponds to complete equality of a population and 1 corresponds to total inequality (respectively; each person has the same income, one person has all income). It is argued that the Gini coefficient is a good measure when the objective is to compare groups with each other and to look how income inequalities changes overtime (Brakel-Hofmans, 2007). However, a down side is that countries with the same coefficient can have different income distributions and that the Gini coefficient is particularly sensitive for changes around the average of the distribution and not at the ends of the distribution. This explains that the coefficient does not variate that much when for example the wealth of the rich declines in favor of the poor. In analyzing the results one has to take this into account (Brakel-Hofmans, 2007).

The gini coefficient of the distribution of market income and the gini coefficient of the distribution of household disposable income of the Standardized World Income Inequality Data Base (SWIID) are used to calculate the redistribution effect. Which are the gini coefficients of the income distribution before and after taxes and benefits. A downside of this approach is that it contains aggregate figures. In other words the household disposable income is not the income after solely social assistance expenditures. Therefore the results should be perceived as proxies. The redistribution effect of three years (2007-2009) has been used to increase the stability of the cluster analyses.

3.2.5 Efficiency

As described in the theoretical framework distributive efficiency is about the expenditures used to achieve the reduction of inequality as is aimed for. According to Barr (in Eardley et al, 1992) macro efficiency is the share of GDP spend on minimum incomes. To link it to GDP should assure comparability. To establish a measure of distributive efficiency, Hölsch and Kraus (2006) divide the redistribution effect by the proportion of expenditures on social exclusion on GDP. They argue that this says nothing about the quality of the MIS. However, figures on social assistance expenditures are very hard to find. Hölsch and Kraus use the expenditures as described in Eardley et al. (1996). Since these are very old, it would be impossible to compare them to the other variables. Therefore the expenditures on housing and social exclusion in GDP are used, which are provided by EUROSTAT (2011). However, these were solely available for the year of 2008.

3.3 Validity and reliability

Cluster analysis is a descriptive method for data analysis. It does not account for causal relations between variables, rather it is a tool for exploratory purposes. This explains why validity and reliability of cluster analysis are not discussed in the available literature on this instrument (Gough, 2001; Hölsch & Kraus, 2006; Norusis, 2013; Romesburg, 2004). The results should be considered as proxies to explore the relations between the degree of centralization and the other variables. In this study it cannot be said that the degree of centralization is the independent variable and mobility, benefit levels, effectiveness and efficiency are the dependent variables. However they will be called that way to indicate that we are interested in the relation between the degree of centralization and the rest of the variables. Although the variables are interrelated, to analyze these is considered to be outside the scope of this study.

It is suggested to account for the stability of the results by conducting various clustering methods which use different techniques (Hölsch and Kraus, 2006). Within hierarchical cluster analysis in SPSS different cluster methods and measures can be used. Ward's method with squared Euclidian distances is often used. In this study Ward's method and median clustering are applied with squared Euclidian distances and Minkowski as distance measures. All variables are normalized to the range of [0;1].

3.4 Case selection

Our interest is in minimum incomes in federal countries due to the resemblances of the EU with a federation. According to the literature there seems to be no agreement on what federalism is (Finsen, 2011; Obinger et al., 2005). In a broad sense a federation has been defined as 'a vertical division of powers on at least two levels of government and both levels of government have a certain degree of autonomy' (Finsen, 2011, p. 3). A narrower definition is provided by Obinger et al. (2005, p. 11), but the characteristics which they mention make categorization of federal countries very complicated. In this study we will use the broad definition. Furthermore, to be able to compare the federal countries with one another, the choice is made to include all economically developed federal countries who are member of the Organization of Economic Co-operation and Development (OECD) as well as the EU. The cases in this study are: Australia, Austria, Belgium, Canada, Germany, Italy, Spain, Switzerland, United States and the European Union.

Chapter 4 – Results

In this chapter the results will be described of the research which was carried out to answer the sub questions. In the first paragraph the MIS of the federal countries are described. Hereafter the cluster analyses of the variables are presented. The results are used to validate the hypotheses.

4.1 Organization of MIS in federal countries

Within this paragraph the organization of minimum incomes of our cases is described. Only few studies have focused on minimum incomes from a comparative perspective. The results provide a first impression of the welfare side of federal countries and are used in the latter part of the research. On page 32-33 a useful overview has been constructed with which the different levels of government involved in the provision of minimum incomes are portrayed.

Australia

In comparative welfare state research Australia has been depicted a social policy laggard (Castles and Uhr, 2005; Saunders and Deeming, 2011). The great expansion of public services after the Second World War, which occurred in many Western countries, did not happen in Australia. However, other scholars suggested that the Australian case is exceptional because welfare objectives are achieved by different means than European welfare states have (Castles, 1997; Saunders and Deeming, 2011). Castles (1994; 1997) describes Australia as an Antipodean wage earners welfare state in which labour market and wage policies are of great importance for realizing social policy objectives. Moreover, Australia's social protection is extensively targeted (Saunders and Deeming, 2011). An extensive system of means-tested benefits exists and because thresholds are low, a relatively large part of society makes use of them. The Special Benefit could be considered the Australian general minimum income benefit (Australian Government, 2013a; Gough, 1997). In Australia the federal government has legislative and financial authority over the Special Benefit (Australian Government, 2013b; Obinger et al., 2005). The department responsible for administering this benefit is called the department of Human Services (Australian Bureau of Statistics, 1997).

Austria

After the Second World War Austria was re-established as a democratic federal republic and since then it consists of nine federal states which are called Länder (BMEIA, 2013a). Previously social assistance was called *Sozialhilfe* and great differences existed between the Länder because they could set their own benefit levels (BMASK, 2012; Gough et al., 1997). However, since 2010 there is a system of means tested minimum income or *Bedarfsorientierten Mindestsicherung* (BMS) (BMEIA, 2013b; MISSOC, 2013). With the BMS the federal government and the Länder have agreed on a shared minimum standard for all citizens who are eligible. However, Länder are free to provide certain groups, like people with disabilities or the chronically ill, with higher benefits than others and therefore there still remain some regional differences with regard to the height of the BMS (BMASK, 2012; Fuchs, 2007; MISSOC, 2013). The federal government and the Länder share legal authority for MIS, but the Länder are financially responsible. Furthermore, the administrative authority is shared between the Länder and the municipalities (BMASK, 2012; Fuchs, 2007; MISSOC, 2013). The welfare state of Austria has been depicted as a conservative corporatist welfare regime (Esping-Andersen, 1990; Fuchs, 2007). This type of welfare state is known for relying heavily on social insurance to assure that workers are able to support themselves and their families. Social provision therefore stratifies society in existing class, status and gender differences (Esping-Andersen, 1990).

Belgium

Since 1993 Belgium is established as a true federal state, although steps towards federalism have been taken prior to this date (Belgische Federale Overheidsdiensten, 2013). In May 2002 a law was passed which entailed the 'right to social integration' (European Commission, 2009a). In this institutional framework the integration income (*revenvue d'intégration/leefloon*) can be considered the Belgium MIS *(*Belgische Federale Overheidsdiensten, 2013; European Commission, 2009a; MISSOC, 2013). The federal state is responsible for determining the social minimum income level, but distributive administration is done at the local level by the Public Centres for Social Welfare (PCSW) *(Centre public d'action sociale/Openbaar Centrum voor Maatschappelijk Welzijn).* The benefits are financed by the federal state, the PCSWs and the municipalities. Besides the 'right to integration', there as well exists a 'right to social assistance' (European Commission, 2009a). Social assistance in this case can be considered complementary to the 'right to social integration' and consists of different services and additional funding provided by the PCSWs. With regard to social assistance the PCSWs have

greater autonomy with regard to granting social assistance, which results in more regional differences. In the peer review report on minimum incomes of the European Commission (2009a) the integration income is considered to be the Belgium MIS and social assistance is not taken into account. This line will be followed in this research.

Canada

The language difference between the English and French speaking parts of Canada is also accompanied by some great cultural differences between the provinces. Especially the French province Quebec considers itself as being not just culturally and linguistically different, bus as well historically and politically (Banting, 2005). Nationalist and separatist believes and economic differences have strengthened the division between the province of Quebec and the rest of Canada (Banting, 2005). The Canadian Constitution of 1867 has made the provinces autonomous with regard to social policy and therefore MIS can take on different names, benefit levels and entitlement criteria (Obinger et al., 2005). Although the provinces have legislative authority over social assistance, the federal government shares the financial costs with the states. Till 1995 the federal government provided the provinces with funding specifically to be used for welfare, namely the Social Assistance Plan (CAP) (Department of Finance Canada, 2013; Gough, 1997; Kneebone and White, 2009). However, due to rising social expenditures on part of the federal state the CAP was replaced with the Canada Health and Social Transfer (CHST). Since then all provinces were granted a block fund, which was comprised of an equal amount of money per capita, which provinces should use to pay not just for social assistance and social services but as well for health and secondary education (Department of Finance Canada, 2013; Kneebone and White, 2009). Furthermore the size of the budget was reduced with 34 per cent in three years' time (Kneebone and White, 2009). This resulted in provinces trying to cut their social assistance programs. According to Kneebone and White (2009) the government gained stability with regard to costs on social welfare, while possibly creating instability to social welfare programs. To increase transparency and accountability the CHST was divided in the Canada Health Transfer (CHT) and the Canada Social Transfer (CST) in 2003 (Department of Finance Canada, 2013).

Germany

The MIS of Germany was called *Sozialhilfe*, but with the Hartz IV reforms of 2003 it has been changed substantially and is nowadays called *Arbeitzlozengeld II*. All people between the ages of 15 and 65 who are considered to be able to work can apply for *Arbeitszlozengeld II*. The

Sozialhilfe will only remain to exist for those who are not able to work like those in psychiatric residential care or people aged 65 and older (Socialhilfe24, 2013). Unemployment assistance and social assistance were integrated into *Arbeitslozengeld II* to increase transparency and administrative efficiency and eligibility was tightened to motivate people to get back to work (Fleckenstein, 2008; Sozialhilfe24, 2013). The reforms have been depicted as path-breaking with the conservative legacy of Germany's social security which was centered predominantly on employment entitlements (Fleckenstein, 2008). Previously unemployment benefits and unemployment assistance were administered by the Public Employment Service (PES) and social assistance was the responsibility of the municipalities (Fleckenstein, 2008; Obinger et al., 2005). Nowadays the PES and the municipalities share administrative responsibility for *Arbeitzlozengeld II* in joint ventures. The federal government remains to have legislative authority.

Italy

According to Roux (2008) Italy is not yet a full federal state, but several developments the last decades have made Italy increasingly federal. In the Italian Constitution of 1947 five regions were created, which gained some extended powers. The regions were complemented in 1970 with another fifteen regions; however the regions were never depicted as federal states. Instead, Italian regionalism seemed to be somewhere in between a unitary and a federal state. In 1990 a constitutional reform bill was proposed and for the first time reference was made to a federal structure of Italian governments. Since then federalism of Italy has gained more salience and in 2007 a proposal was done to implement fiscal federalism. However, till now all developments did not result in the establishment of a true federal state (Roux, 2008). With regard to MIS Italy has been described as a laggard in comparison to other European welfare states. According to Madama (2013) Italy has no national social assistance and citizens are ought to rely on family members for social welfare. However several regions and municipalities have initiated their own social assistance schemes which resulted in great regional differences (Madama, 2013). In 2000 a law was passed to create more homogeneity by developing a common minimum standard of public provision to be granted over the whole national territory' (Madama, 2013). However, little has changed since then.

Spain

Like Italy Spain is also not officially described by the Spanish government as a federal country. However, a process of decentralization has taken place the last decades which made Spain more

federalized over the years. Viver Pi-Suñer (2010) even states that the decentralization process of Spain has been completed. Furthermore he argues that the decentralization of the Spanish government took place at the same time as the transition from an autocratic government to a democracy. After the dictatorship of Franco, a system was designed with autonomous communities to do justice to the cultural differences and the call by some regions for autonomy. Social protection became the domain of the regions and the legislative and executive powers of MIS are therefore with the regions (Viver Pi-Suñer, 2010). According to Ayala and Rodriquez (2007) means tested benefits in Spain only developed since the 1970s. However due to a lack of coordination a complex system emerged in which some benefits overlap each other but as well some population groups are not covered at all. The inability of the central government to initiate some sort of national minimum income resulted in regional governments developing their own MIS since the late 1980s. In general these are called *Ingreso Minimo de Insercion* (IMI) (Ayala and Rodriquez, 2007; Gough et al., 1997). Ayala and Rodriquez (2007) note that there has been great controversy on these developments. Firstly, and interestingly with regard to the topic of this thesis, it was thought that the decentralization of social assistance would cause migration. Supposedly there are empirical estimates that show that this did not happen which can be explained by the low level of benefits and strict residence requirements. However the authors do not mention where they have retrieved this information. Secondly the controversy was also invoked by the fact that many regions had problems with the coordination and the financing of the initiatives which resulted in major differences between the schemes itself and their outcomes (Ayala and Rodriquez, 2007).

Switzerland

Switzerland is also referred to as the Swiss confederation (Schweizerische Eidgenossenschaft, 2013). A confederation differs from a federation with regard to the power and autonomy of the units (federal states) under the confederation, which is greater than within a federation (Frenkel, 1986). Switzerland has been formed out of different regions with each their distinct ethnic, lingual, cultural and religious differences which explains why was opted for a confederation. According to Obinger (1999) welfare arrangements developed relatively late in Switzerland. This is partially explained by great economic growth after the Second World War, very low levels of unemployment and a history of welfare provided by churches and family. Furthermore, because of the interregional differences, this task was historically assigned to the local level (the communes) and eligibility depended on ones place of origin (Tabin, Frauenfelder, Togni and Keller, 2011). Since 1977 and due to increased mobility, nowadays the place of residence

Table 1:   A taxonomy of the set-up of Minimum Income Schemes in Federal Countries

Country	Type of State	Federation Since	Levels of government	Name of MIS	Legislative Authority	Financed by	Administrative responsibility
1. Australia	Monarchy	1901	Federal government, 6 federal states and 10 territories	Special Benefit	Federal Government	Federal Government	Federal Government
2. Austria	Republic	1955	Federal government and 9 *Länder*	*Bedarfsorientierten Mindestsicherung*	Federal Government and Länder	Länder	Länder and municipalities
3. Belgium	Monarchy	1993	Federal government, 3 *gemeenschappen,* and 3 *gewesten*	*revenvue d'intégration* or *leefloon*	Federal Government	Federal government, PCSWs and municipalities	Locally at Public Centers for Social Welfare (PCSWs)
4. Canada	Monarchy	1867	Federal government, 10 provinces and 3 territories	In general Canada Social Transfer (CST) but names of MIS differ per province	Provinces	Federal Government and Provinces	Provinces
5. Germany	Republic	1949	Federal government and 16 *Länder*	*Arbeitzlozengeld II*	Federal government	Federal government	Public Employment Service (PES) and municipalities

Table 1:   A taxonomy of the set-up of Minimum Income Schemes in Federal Countries (Continued)

Country	Type of State	Federation Since	Levels of government	Name of MIS	Legislative Authority	Financed by	Administrative responsibility
6. Italy	Republic	1946; ongoing process	Federal government and 20 regions	Local Cash Assistance	Municipalities and Regions	Municipalities and Regions	Municipalities and Regions
7. Spain	Monarchy	1978	17 regions and one government	*Ingreso Minimum De Insercion* (IMI)	Regions	Regions	Regions
8. Switzerland	Republic	1848	3 layers: Federal government (confederation), 26 Cantons, Communes	*Sozialhilfe* or *Fürsorge*	Cantons and Communes	Cantons and Communes	Cantons and Communes
9. United States	Republic	1776	Federal government and 50 states	General Assistance	States and local governments	States and local governments	States and local governments
10. European Union	Economic and political union	1993	European government, 27 Member States	Different for every Member State	Member States	Member States	Member States

determines which government is responsible for providing social welfare (Tabin et al., 2011). The MIS of Switzerland is called *Führsorge* or *Sozialhilfe* and the legislative, financial and administrative responsibility is shared between the cantons and the communes (Obinger, Armingeon, Bonoli, and Bertozzi, 2005).

United States

The US has been depicted as a typical liberal welfare state, with a great emphasis on the market and underdeveloped social policies (Esping-Andersen, 1990; Finegold, 2005). Skocpol (1992; 1993) argues that at the beginning of the twentieth century different welfare arrangements developed, like unemployment insurance, public assistance (organized by certain states andcost-shared with the federal government) and old-age insurance. As well a lot of women worked in public services. However as to the question why these policies did not develop into a more extensive welfare state like those in Europe, she points at the interplay between US state formation and the existing political structures. American workers already had suffrage in the nineteenth century which explained that there was not a direct need for the working class to mobilize itself and because of the federal decentralization of political powers it was hard to influence political decision-making at national level (Skocpol, 1992; 1993). Today's social policies in the US vary with regard to the levels of government involved. General Assistance (or General Relief) can be considered the American MIS and states have legislative, administrative, financial authority. General Assistance is a benefit for those with or without children and who are not eligible or waiting for Temporary Assistance for Needy Families and the Supplement Security Insurance. However, it has been noted that eligibility has been reduced over the years and benefit levels are very low, as well some states do not provide General Assistance at all (Finegold, 2005).

European Union

As has been described in the introduction, some argue that the EU can already be compared to a federation. However, the objective of becoming a true federation is still much debated. The proclaimed founding father of the EU, Jean Monnet, has articulated that a European federation is an objective of the European Integration project in order "to enjoy prosperity and social progress" (Finsen, 2011, p. 10). However, this was not explicitly stated in the Treaty of Paris in 1951, which led to the creation of the European Coal and Steel Community. Finsen (2011) argues that because of the hesitance of the UK and new Member States, the 'federal' word seems to have been banned from all Treaties. Moravczik (2001) explains that EU protagonists,

in favor of a European federal state, point at the EU record of (economic) growth and achievement. On the contrary, EU skeptics fear for a Brussel-led super state and argue that the EU is democratically illegitimate, because it is thought not to rely sufficiently on electoral representation. Recently, László Andor, European Commissioner responsible for Employment, Social Affairs and Inclusion, stated in his speech at 7 March 2013 that with regard to the social crisis that is hitting Europe at this moment, the European Union needs federal solutions in order to increase the influence of the EU on the social agreements made by Member States (European Commission, 2013c). This could be interpreted as a call for further integration and possibly more centralization in certain policy areas.

With regard to the governance of the EU and the division of responsibilities between Member States and the European Community (EC) it is important to discuss the subsidiarity principle. In general the principle of subsidiarity means that activities should be undertaken at the government level which is most appropriate. In the 1970s and 1980s the principle was used in the EC as an argument for more centralization of the EU. However, since the 1990s the principle is used to justify decentralization of governments' responsibilities (Bretton, Cassone, and Fraschini, 1998). The principle was included in the Maastricht Treaty of 1992 with the objective that the EC should solely take action in those areas where this cannot be done more effectively by Member States themselves (Critchley, 1995; European Parliament, 2013). Guidelines have been developed on the subsidiarity principle which are used for every new legislative proposal, to ensure that as much power as possible is assigned to the Member States. This is done for three reasons: to limit the power of the EC, to take into account 'the diversity of national traditions with Europe' and 'to ensure that powers are exercised as close to the citizen as possible' (Critchley, 1995; European Parliament, 2013). Social policy is an example of an area which is depicted by the subsidiarity principle to be the responsibility of the Member States rather than the EC (Critchley, 1995).

4.2 Cluster analyses

In this paragraph the results of the cluster analyses will be presented. As described in the research design, different cluster techniques and distance measures were used to account for the stability of the results. All of the dendrograms can be found in the Appendices B to G. Within the results section only the dendrograms of the Ward's method with squared Euclidean

distances are portrayed. This choice has been made since this measure is most commonly used and the clustering of the different dendrograms show strong similarities with each other.

4.2.1 The degree of centralization

In the theoretical framework it became clear that the degree of centralization indicates to what extent a MIS is organized centralized or decentralized. Using cluster analysis to classify the cases according to their degree of centralization, it is expected that the set-ups with a very centralized set-up cluster together, as should be the case for countries with a decentralized set-up. To perform the analysis the overview of the previous paragraph has been used to assign the cases the corresponding values as is described in the research design. Figure 2 shows the results of the cluster analysis for the degree of centralization using five values.
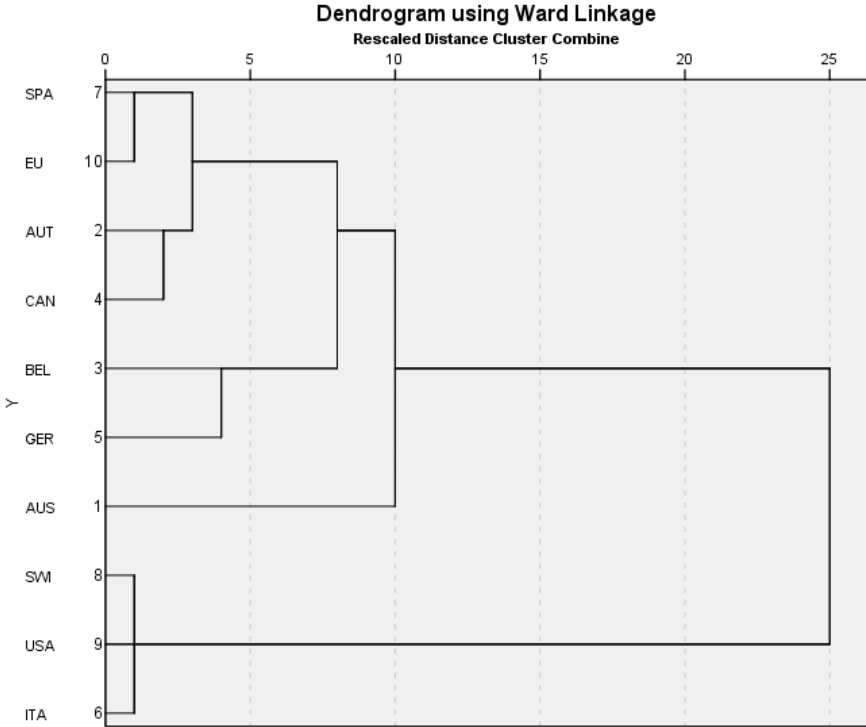
Figure 2: Dendrogram degree of centralization using five values

The tree or dendrogram can be read from left to right. The closer the cases are linked near the zero, the stronger the cases are similar to each other. When we have a look at Figure 2 from the top down we see that Spain and the EU are the first cluster since they have their MIS solely on the regional level. On a slightly higher level their linked with Austria and Canada. These two cases have MIS with an emphasis of authorities on the regional level. Whereas in Canada the

financial authority is shared by the national and regional level, Austria shares the legislative and administrative level (respectively with the national and local level). The third cluster consists of Germany and Belgium. They both have an MIS with authorities at the national level. However, Australia is the only country with a centralized set-up of minimum incomes. The last cluster which is portrayed consists of Switzerland, USA and Italy. All three have their legislative, financial and administrative authority shared between the regional and local level. Analyzing the dendrogram it becomes clear that there are many different cluster. These fragmented results makes validating our hypotheses more difficult. Reflecting upon the theoretical framework it could be that distinguishing between five levels (local, state and national and two shared levels) is too much. The literature on the relation between the degree of centralization and the remainder of the variables addressed in the framework and with which the hypotheses were formulated solely distinguish between two levels; centralized or decentralized (Oates, 1999; Samuelson, 1954; Tiebout, 1965). Constructing a cluster analysis with these two levels and one shared level, might proof to be more valuable to be able to validate our hypotheses. A three-level cluster analysis is performed and again we only portray the dendrogram for the Ward's method with Euclidean distances.
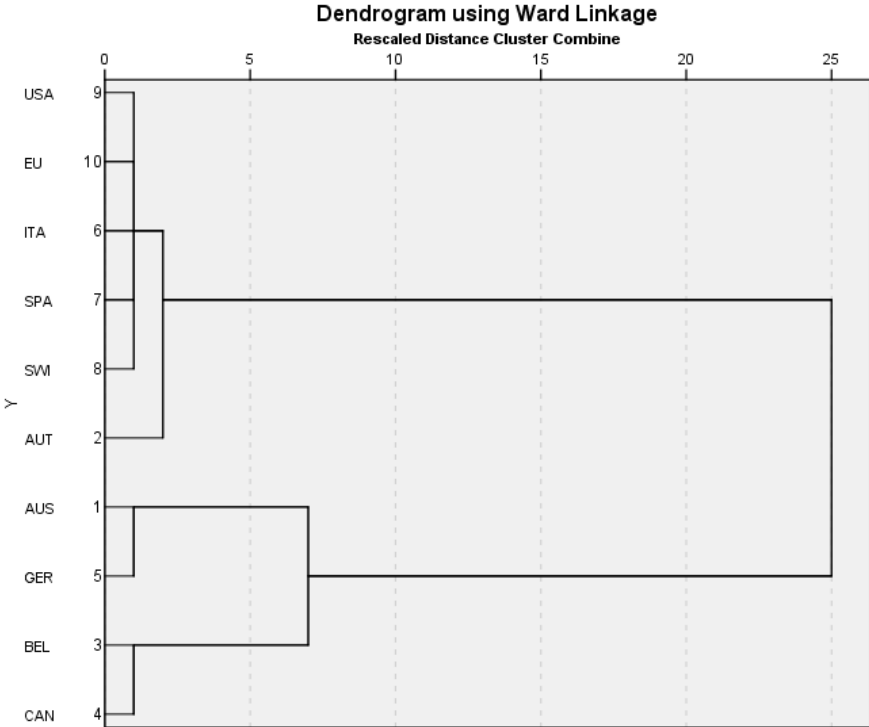
Figure 3: Dendrogram degree of centralization using three values

In the dendrogram in Figure 3 we can see that the clusters are much stronger portrayed. The first cluster consists of six cases. The USA, EU, Spain, Italy, Switzerland and to a slightly lesser extent Austria. For all of these cases the MIS is organized in a de-central manner. Thereafter a small cluster of Australia and Germany is portrayed, which are those countries that have a relatively centralized MIS although the administrative authority of Germany is at the local and regional level. The last small cluster consists of Belgium and Canada. These cases have some of their authorities over minimum incomes organized central, others de-central and as well some are shared between both levels. The clusters are summarized in Table 2. This table will serve as a tool to compare the clusters of the degree of centralization with the clusters of the dependent variables.

Degree of centralization	Centralized	Shared	Decentralized
	Australia, Germany	Belgium, Canada	USA, EU, Spain, Italy, Switzerland, Austria

Table 2: Clusters degree of centralization

4.2.2 Mobility

Hypothesis 1 indicates that we can expect countries with a decentralized MIS to portray higher numbers of interregional mobility than countries with centralized MIS. To validate this hypothesis a cluster analysis has been carried out with the figures of the EU-LFS on interregional mobility. In Figure 4 the dendrogram of the cluster analysis on mobility is portrayed. Four clusters are visible in the dendrogram. Italy and the EU-15 represent the first cluster. Both cases have the lowest regional mobility, respectively 0.2 and 0.1 per cent. The second cluster is composed out of Australia and Spain, closely followed by the cluster of Belgium and Germany. Regional mobility rates range between 0.7 and 1.6 per cent for these cases. The USA represents an outlier with regional mobility of 2.5 per cent of total population. This is twenty-five times higher than the EU. Although the Single Market is thought to encourage the movement of people within the EU, so far it did not result in a significantly high percentage of labour migration.

In Table 3 a comparison is made between the clusters of the degree of centralization and the clusters on mobility. The labels are in correspondence to what is suggested in the literature. The

cases are categorized according to the empirical results of the cluster analyses. With the exception of Belgium and the USA, the clusters of the two variables are completely different. This is contrary to what is expected. Hypothesis 1 suggested that countries with decentralized MIS portray higher numbers of interregional mobility than countries with centralized MIS. The results show that the hypothesis cannot be accepted. However it is noticed that among the cases there is great variation in regional mobility, but in the dendrogram the clusters do not portray this. An explanation could be that since figures for multiple years and some of the cases were missing, a cluster analysis is less appropriate. Furthermore this indcates that more data might yield different results.
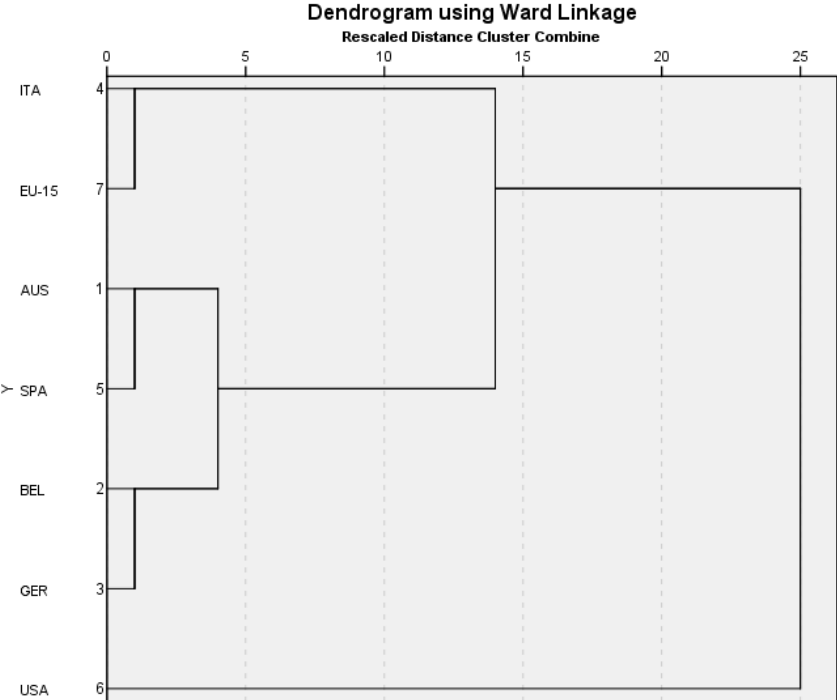
Figure 4: Dendrogram cluster analysis on mobility

Degree of centralization	Centralized	Shared	Decentralized
	Australia, Germany	Belgium, Canada	USA, EU, Spain, Italy, Switzerland, Austria
Mobility	**Low**	**Medium**	**High**
	EU-15, Italy	Australia, Spain, Belgium, Germany	USA

Table 3: Clusters degree of centralization and mobility

4.2.3 Benefit levels

Hypothesis 2 predicts that countries with a decentralized MIS have lower benefit levels than countries with centralized MIS. To be able to accept or reject the hypothesis the benefit levels of minimum income protection for individuals expressed in PPP have been used as data for the cluster analyses. In the dendrogram (Figure 5) three clusters are visible. The first cluster contains Germany, Switzerland, Australia, Canada and the USA. The benefit levels of these countries vary from PPP $ 456.57 (USA) to PPP $ 1708.00 (Germany). Although it can be argued that there are great differences within this cluster with regard to the height of benefit levels, the other clusters portray much higher levels of minimum income.
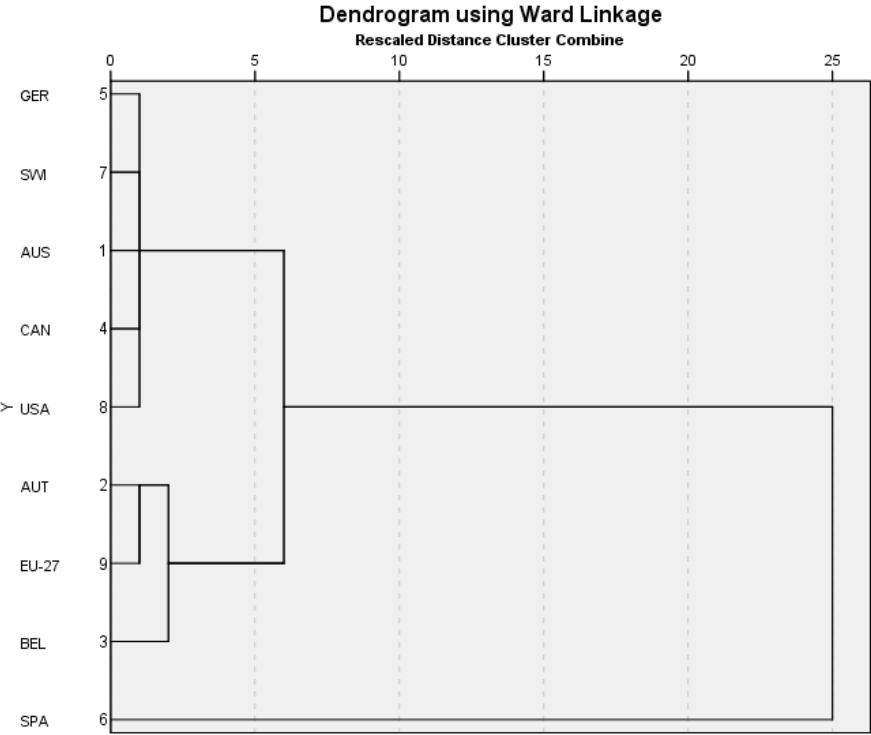
Figure 5: Dendrogram cluster analysis on benefit levels

The second cluster consists of Austria, the EU-27 and Belgium, but as well contains some great differences among the cluster with regard to benefit levels. The last cluster is solely constructed out of one case, Spain with an average benefit level of PPP $ 58.932. The first conclusion is that there are very large difference between all of the cases with regard to benefit levels of minimum incomes expressed in PPP.

In Table 4 the clusters of the degree of centralization are compared with the clusters of benefit levels. The centralized countries do not seem to portray the high benefit levels as was hypothesized. Of the countries with a decentralized MIS, solely the USA and Switzerland indeed seem to portray relatively low benefit levels. However, according to the cluster analysis Australia and Germany as well belong to the category with low benefit levels. This is contrary than what is suggested in the literature, that these centralized countries would portray high benefit levels. With the results hypothesis 2 can only partially be accepted. However, since the results show very low resemblances a firm conclusion cannot be made.

Degree of centralization	Centralized	Shared	Decentralized
	Australia, Germany	Belgium, Canada	USA, EU, Spain, Italy, Switzerland, Austria
Benefit levels	**High levels**	**Medium**	**Low**
	Spain	Austria, EU-27, Belgium	Germany, Switzerland, Australia, Canada, USA

Table 4: Clusters degree of centralization and benefit levels

4.2.4 Effectiveness

Hypothesis 3 entails the expectation that countries with decentralized MIS are less effective than countries with centralized MIS. To assess this hypothesis the redistribution effect of the cases are calculated using the Gini coefficients of the market and household income for the years 2007-2009. The redistribution effects are used as input for the cluster analysis. In the dendrogram on effectiveness (Figure 6) we can distinguish four clusters. The first cluster consists out of Canada, Italy and Australia. The redistribution effect in these countries average around 25 per cent. Spain and the USA are the second cluster and they have the lowest redistribution effect, respectively 17 and 21 per cent. The third cluster is composed out of Austria and Germany. Both portray a redistribution effect of around 44 per cent. Lastly Belgium, Switzerland and the EU-27 are a cluster, with an average redistribution effect of around 35 per cent. In Table 5 a comparison is made between the clusters of the degree of centralization and those on effectiveness. It becomes clear that to some extent the clusters seem to overlap each other.
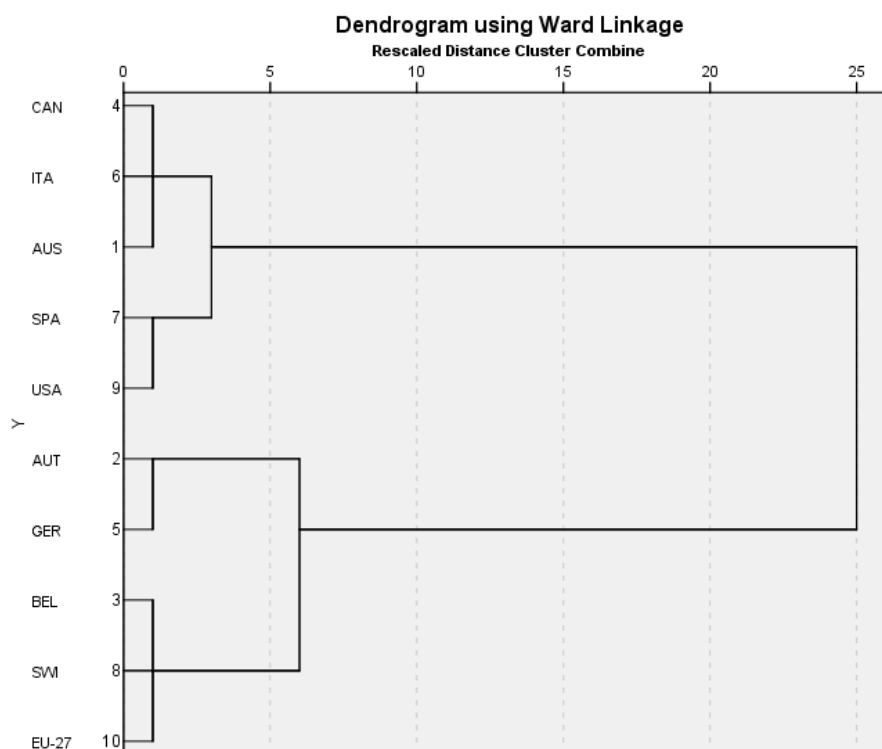
Figure 6: Dendrogram cluster analysis effectiveness

Decentralized Spain and the USA indeed portray low levels of effectiveness. Belgium and Canada take a medium position in both classifications and Germany with its relatively centralized MIS shows high levels of effectiveness. However, Italy, Australia, Austria and the EU do not match the hypothesis. In sum it can be stated that so far the degree of effectiveness seems to coincide somewhat with the degree of centralization, however the results are not inconclusive. Hypothesis 3 cannot be accepted. However, due to the fact that the redistribution effect of the household income for all taxes and benefits has been calculated, a redistribution effect which solely entails minimum incomes might yield different results.

Degree of centralization	Centralized	Shared		Decentralized
	Australia, Germany	Belgium, Canada		USA, EU, Spain, Italy, Switzerland, Austria
Effectiveness	High	Medium		Low
	Austria, Germany	Belgium, Switzerland, EU-27	Canada, Italy, Australia	Spain, USA

Table 5: Clusters degree of centralization and effectiveness.

4.2.5 Efficiency

Hypothesis 4 suggests that countries with decentralized MIS are more efficient and have therefore relatively lower expenditures on minimum incomes. To analyze this hypothesis a cluster analysis has been performed using the housing and social exclusion benefits as a percentage of GDP.
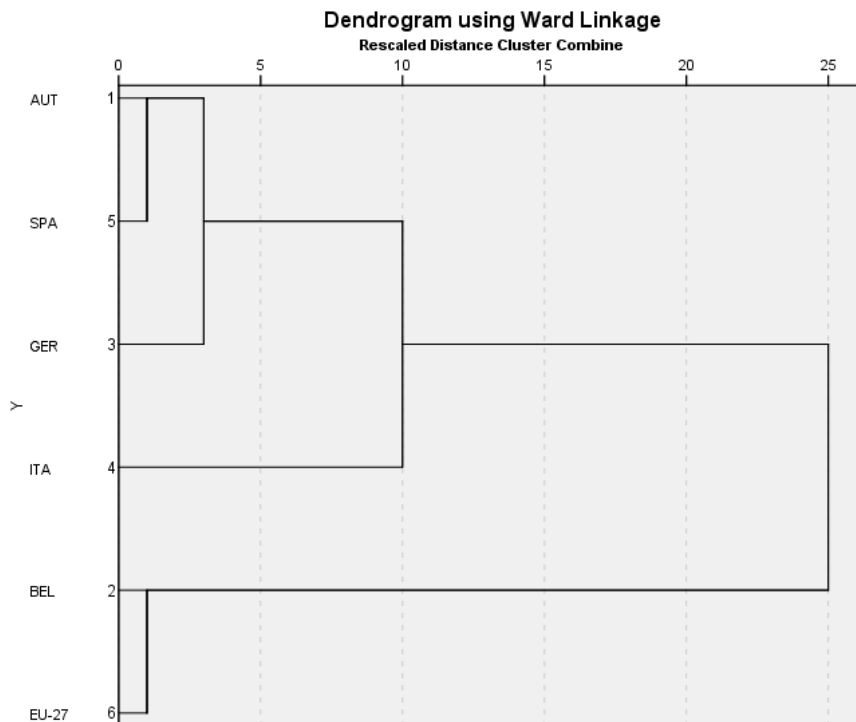
Figure 7: Dendrogram cluster analysis efficiency

In Figure 7 the dendrogram entails four clusters. The first cluster is composed out of Austria and Spain. Housing and social exclusion benefits are respectively 0.4 and 0.5. At the other end we find a cluster with Belgium and EU-27 (1.0 and 0.9). Italy portrays the lowest percentage of 0.1 and Germany has an upper middle position with 0.7 per cent. In Table 6 the clusters of the degree of centralization and efficiency are summarized. It was expected that centralized countries would have low levels of efficiency and decentralized countries would have high levels of efficiency (Hypothesis 4). The results suggests that hypothesis 4 can be rejected, since solely the Italy portrays the high levels of efficiency as suggested by its decentralized minimum income structure. All of the other cases are categorized differently than was expected.

Degree of centralization	Centralized	Shared		Decentralized	
	Australia, Germany	Belgium, Canada		USA, EU, Spain, Italy, Switzerland, Austria	
Efficiency	Low	Medium		High	
	Belgium and EU-27	Germany	Austria and Spain	Italy	

Table 6: Clusters degree of centralization and efficiency

With regard to the use of cluster analysis, as with the cluster analysis on mobility, it was not possible to collect data for the cases for multiple years, neither all the cases could be addressed. Therefore the clusters are not that strong and question marks can be placed on the use of cluster analysis for such a small amount of cases. Possibly the use of more data for more cases will portray a different picture than the dendrogram of this sections presents.

4.2.6 Synthesis

Degree of centralization	Centralized	Shared	Decentralized
	Australia, Germany	Belgium, Canada	USA, EU, Spain, Italy, Switzerland, Austria
Mobility	**Low**	**Medium**	**High**
	EU-15, Italy	Australia, Spain, Belgium, Germany	USA
Benefit levels	**High levels**	**Medium**	**Low**
	Spain	Austria, EU-27, Belgium	Germany, Switzerland, Australia, Canada, USA
Effectiveness	**High**	**Medium**	**Low**
	Austria, Germany	Belgium, Switzerland, EU-27	Canada, Italy, Australia	Spain, USA
Efficiency	**Low**	**Medium**	**High**
	Belgium, EU-27	Germany	Austria and Spain	Italy

Table 6: Overview clusters variables

In Table 6 the classifications of the variables are put together. The cases are highlighted if they indeed are in the categories of the dependent variables as was suggested by the theory on the degree of centralization. This overview will be used in answering the research question in the next chapter.

Chapter 5 – Conclusions

In the final chapter the conclusions on the sub questions and research question are presented. As well the strengths and weaknesses of this study are discussed and some recommendations for future research are provided.

In the introduction is was argued that at EU level attention for minimum incomes has increased the last years and that there even seemed to be a tendency towards centralization of these benefits. As to whether how this latter development should be judged it became clear that scholars do not agree whether minimum incomes should be centralized or decentralized. Therefore the question was posed whether we could find an answer within the organization of minimum incomes in federal countries. The theoretical framework revealed that the degree of centralization of minimum incomes is thought to be related to mobility, benefit levels, effectiveness and efficiency. Since comparative literature on this topic is not available, a research design was proposed in which the relation between the variables could be explored by the means of cluster analysis. It was expected that a centralized set-up of minimum incomes would correspond to relatively low levels of mobility, high benefit levels, high effectiveness and low efficiency. On the contrary, a decentralized set-up of minimum incomes was expected to be related to high levels of mobility, low benefit levels, low effectiveness and high efficiency.

5.1 Conclusion sub questions

Sub question 1: How are MIS organized in federal countries?

To answer the first sub question an analysis of policy documents, scientific literature and governments' websites has been carried out. It was found that there are great differences among the cases. Not just with regard to the levels of government which are involved in the organization of minimum incomes, but as well to the MIS themselves and to the federal structure of the cases. With regard to the differences in MIS, Australia for example has an extensive system of means-tested benefits, whereas Italy has no nation-wide MIS at all. The differences in MIS have been underlined by Figaro et al. (2012) and Gough et al. (1997). The results of this study confirm this. Looking at the federal structure, we see that for instance the US has been a federation for over two centuries, but Spain and Italy are still not officially

labeled as federal countries. As well the federal structure of for example Belgium, with its three *gewesten* and three *gemeenten,* is completely different from that of Germany, which consists of 16 *Länder*. These observations have shed light on why an encompassing definition of federalism has been hard to develop (Finsen, 2011; Obinger et al., 2005). With regard to the organization of minimum incomes in federal countries it becomes apparent that the levels involved are not just very different for all of the cases, but as well they are constantly evolving. In Austria for example great differences in benefit levels existed since the local governments had full autonomy over MI. However, since 2010 the federal government and the Länder have agreed on a shared minimum standard for all citizens who are eligible. This points as well to the utility of the data bases used in this research. Besides that the lack of recent data has been striking, it might be that the classification on the degree of centralization are inconsistent.

As an answer to the first sub question I conclude that although the cases have been selected by the similarities they portray with regard to their level of economic development, it can be argued that the cases differ quite extensively from each other with regard to their federal structure, their MIS and the levels which are involved in the organization of minimum incomes.

Sub question 2: How can federal countries be classified with regard to the degree of centralization of MIS?

Gough et al. (1997) and Hölsch and Kraus (2006) have argued the importance of the degree of centralization in their work and the latter have carried out a cluster analysis using the degree of centralization. It was expected that by the use of cluster analysis the cases would cluster according to their similarities and differences on the indicators with which the variable degree of centralization was constructed. However, the results of the cluster analyses showed that using five values to cluster the countries lead to fragmented clustering. Partially this matches the empirical observations of the former paragraph, in which it became clear that there are great differences among the cases with regard to the levels of government involved in minimum incomes. However, the scholars on federalism and income redistribution underline a certain dualism between centralized and decentralized countries with regard to the variables analyzed in this study (Samuelson, 1954; Tiebout, 1956, Oates, 1999). Therefore a cluster analysis using three values proved to be more valid to help us examine the hypotheses. For this second cluster analysis on the degree of centralization three clusters became visible with which the second sub question can be answered.

I conclude that federal countries can be classified according to three clusters. Cluster 1 consists of the USA, EU, Spain, Italy, Switzerland and Austria. This cluster represents the cases with minimum incomes organized de-central. The minimum incomes of Switzerland and Austria have been labeled 'highly decentralized' by Eardley et al. (1996) and therefore the results confirm this previous categorization. However, the typology of Eardley et al. (1996) used more criteria than the degree of centralization, which explains that some of their other categories make no reference to the government structure at all. Cluster 2 entails Belgium and Canada, both countries have a MIS which are characterized by authorities which are at different levels and as well shared by levels of government. Germany and Australia are the third cluster and have MIS which can be typified as being centrally organized. The results confirm previous observations that although scholars in fiscal federalism seem to agree on the centralization of assistance to the poor, in reality the majority of the countries have organized minimum incomes de-centrally (Obinger et al., 2005; Oates, 1999; Röhrs & Stadelmann, 2010).

Sub question 3: How is the degree of centralization related to mobility?

It was expected that the countries with a decentralized set-up of minimum incomes would portray relatively higher levels of mobility than the countries with a centralized MIS. The results showed that the classification of federal countries according to mobility holds few resemblances with the classification based on the degree of centralization. The exceptions were the USA, which displayed indeed high levels of mobility and Belgium, which had medium levels of mobility corresponding to it shared set-up. The results could partially be interpreted as surprising. Both traditional (Samuelson, 1954; Tiebout, 1956) and contemporary scholars (Gordon & Cullen, 2011; Oates, 1999; Wildasin, 1991) still argue that decentralization within a Single Market leads to high levels of interregional mobility. However, looking at the Spanish case, it was already noted by Ayala and Rodriquez (2007) that the fears in Spain for benefit migration due to its decentralized set-up did not become reality. They argue that this could be explained by the low level of benefits and strict residence requirements on the use of MI. Although the results indicate that the degree of centralization is not related to interregional mobility, the lack of sufficient data for all of the cases suggests that more research has to be done to be able to provide a firmer conclusion.

Sub question 4: How is the degree of centralization related to benefit levels?

The theoretical framework suggested that countries with a decentralized MIS have relatively lower benefit levels than countries with a centralized set-up of minimum incomes. Oates (1999) and Wildasin (1991) argue that this is explained by the political pressures central governments face, which makes it difficult for them to lower benefit levels, with increasingly higher benefits as a result. The results of the cluster analysis do not seem to confirm this theory. Some cases are indeed clustered as was expected. Switzerland and the USA for example are both highly decentralized and portray relatively low benefit levels. However, other cases show completely the opposite. Australia and Germany have relatively centralized MIS, but are similarly placed in the category with low benefit levels, which does not correspond to the expectations. I conclude that the degree of centralization of MI does not seem to be related to the height of benefit levels.

Sub question 5: How is the degree of centralization related to effectiveness?

Dahlberg & Edmark (2008) argue that decentralization is supposed to lead to more inequality and poverty and centralization will result in more effective MIS. The empirical findings of this study does show some resemblances between the degree of centralization and effectiveness. About half of the cases are categorized on effectiveness as their classification on the degree of centralization predicted. However the other half of the cases did. So far the relation between the degree of centralization and effectiveness seems to be the strongest of all of the variables. This confirms what has been found by Hölsch and Kraus (2006). They too find correspondence between the degree of centralization and effectiveness. However they note that the results are not convincing, which can as well be concluded on the findings of this study. Upon closer inspection the categorization of effectiveness shows strong resemblances with the typology of Esping-Andersen (1990). In Table 5 we first see the corporatist-conservative countries, thereafter the hybrids Belgium and Switzerland and lastly the liberal regimes. However, since the Mediterranean countries are categorized as having low effectiveness, the results seem to be an argument for a fourth regime, the Southern one (Art & Gelissen, 2001). I conclude that to a certain extent the degree of centralization seems to be related to effectiveness. However, the empirical findings show that this relation could be considered rather weak.

Sub question 6: How is the degree of centralization related to efficiency?

Dahlberg & Edmark (2008) have suggested that competition between regions will assure the efficiency of expenditures on minimum incomes. Since this could not be achieved at a centralized level, decentralization is assumed to be more efficient. Another argument for decentralization is that local governments are aware of the differences of local preferences and costs (Oates, 1999; Wildasin, 1991). The findings of this study do not confirm these expectations. Italy has been the only case with relatively low expenditures on social assistance. However, efficiency should be perceived in the light of effectiveness and although some regions and municipalities in Italy have initiated their own social assistance schemes others do not have minimum incomes at all (Madama, 2013). I conclude that the degree of centralization does not seem to be related to efficiency of minimum incomes, which confirms the results of Hölsch and Kraus (2006). However, since expenditures on minimum income protection are to a large extent unavailable, the results might be different for a study with more and accurate data.

5.2 Conclusion research question

Research question: How are MIS in federal countries organized and how is the degree of centralization of MIS related to the mobility, benefit levels, effectiveness and efficiency in these countries?

Answering the sub questions revealed some important insights with which the research question can be answered. The first conclusion which can be drawn is that MIS in federal countries are organized very differently from one another. There are differences between the MIS, the federal structure and the levels of governments which are involved in the organization of minimum incomes. It can be stated that the differences among the cases seem to appear larger than the similarities. I argue therefore that it can be questioned whether these countries can be compared with each other just because they are considered to have federal government structures.

The second conclusion concerns the relations between the degree of centralization, mobility, benefit levels, effectiveness and efficiency. Firstly the relation between the degree of centralization and mobility did not showed to be present. The expectation that a Single Market would lead to benefit migration has not been met by the results. Secondly, the relation between the degree of centralization and benefit levels was very weak, therefore it could not be

concluded that decentralization leads to low and centralization to high benefit levels. Thereafter the relation between the degree of centralization and effectiveness of MIS has been analyzed. Although the evidence showed more similarities between these variables than with the others, the results were still too weak to conclude that the degree of centralization and effectiveness are related. Lastly, the relation between the degree of centralization and efficiency was not present. It could not be argued that a decentralized MIS is related to more efficient expenditures on minimum incomes. I conclude that the evidence suggest that the expected influence of a centralized or decentralized set-up of minimum incomes on the variables used in this study is non-existent or at most marginal. Although this affirms earlier observations (Hölsch and Kraus, 2006), there is a wide spread belief that these variables are (strongly) related to each other. The empirical findings of this study are contrary to the theories discussed in the theoretical framework and the ideas of politicians, policy-makers and citizens. The results do not provide us with an answer as to whether the EU should centralized or decentralize social policies.

5.3 Discussion

The results of this study can be considered valuable for the accumulation of knowledge on federalism and the welfare state. Although numerous scholars have used and are using the theories of Samuelson (1954) and Tiebout (1956) to underpin their studies, the evidence of this research does not show a clear cut relation between the degree of centralization, mobility, benefit levels, effectiveness and efficiency. On one hand it could be stated that revision of these theories might be appropriate. On the other hand, although the variables used in this study do not seem to relate very strong, I argue that we cannot discard the variables either. This is explained by the shear lack of appropriate data, the small number of cases, and the differences between the federal countries which have been highlighted in this thesis. It should be noted that a more extensive and in-depth study might yield different results.

With regard to the instrument in this study, cluster analysis, it partially proved to be a useful method for hypothesis testing for a small number of cases. With regard to the variables of mobility and efficiency it became clear that the lack of cases and data made the cluster analysis less stable and conclusive. Furthermore, manipulating the results seems to be quite easy since different definitions or data can be used to study the topic of interest.

5.4 Recommendations

The first recommendation is to extent the study on the relation between the degree of centralization and mobility, benefit levels, effectiveness and efficiency. As suggested in the former paragraph, more data is needed to firmly reject (or accept) the hypotheses. Secondly, as highlighted by Ayala and Rodriquez (2007) in the case of Spain, residence requirements might be one of the causes of low levels of benefit migration. A study on the residence requirements of MIS in relation to mobility might proof that these restrictions are an interesting instrument to prevent, the in generally negative perceived, benefit migration. Lastly with regard to the movement towards centralization of minimum incomes at EU level, the results of this study cannot be used to judge if this should be perceived negative or positive. The empirical findings of the conducted research do not provide arguments with which a certain degree of centralization of minimum incomes can be recommended. However, the results on the relation between the degree of centralization and effectiveness seemed to be the most promising one. Since one of the aims of the EU is to decrease and prevent poverty and inequality, more research on the interrelation between these two variables might proof to be valuable.

Bibliography

Australian Government (2013a). *Special benefit.* Retrieved at 27 March 2013 from
http://www.humanservices.gov.au

Australian Government (2013b). *The federal system.* Retrieved at 27 March 2013 from
http://australia.gov.au

Australian Bureau of Statistics (1997). *Government redistribution of income in Australia.*
Retrieved at 27 March 2013 from http://www.abs.gov.au

Ayala, L. & Rodriquez, M. (2007). What determines exit from social assistance in Spain?
International Journal of Social Welfare, *16* (2), 168-182.

Arts, W. & Gelissen, J. (2002). Three worlds of welfare capitalism or more? A state-of-the
art report. *Journal of European Social Policy*, *12* (2), 137-158.

Banting, K. (2005). Canada. Nation building in a federal welfare state. In Obinger, H.,
Leibfried, S. and Castles, F.G., eds. *Federalism and the Welfare State. New World and
European Experiences.* Cambridge: Cambridge University Press.

Barr, N. (2004). *The Economics of the Welfare State*. Oxford: Oxford University Press.

Belgische Federale Overheidsdiensten (2013). *Historische schets van federalisering van
België.* Retrieved at 29 March 2013 from http://www.belgium.be

BMASK (2012). *Social protection in Austria in 2012*. Federal Ministry of Labour Social
Affairs and Consumer Protection (BMASK). Retrieved at 9 April 2013 from
http://www.bmask.gv.at

BMEIA (2013a). *The political, administrative and legal systems.* Retrieved at 27 March 2013
from http://www.migration.gv.at

BMEIA (2013b). *The social security system*. Retrieved at 27 March 2013 from http://www.migration.gv.at

Bonoli, G., (2005). The politics of the new social policies: providing coverage against new social risks in mature welfare states. *Policy & Politics 33* (3), 431-449.

Bradshaw, J. and Finch, N. (2002). *A comparison of child benefit packages in 22 countries.* Department for Work and Pensions Research Report No. 174. Leeds: Corporate Document Services.

Brakel-Hofmans, M. (2007). *Meten van inkomensongelijkheid. Methoden en definities. Inkomen en bestedingen.* Den Haag: CBS.

Bretton, A., Cassone, A. & Fraschini, A. (1998). Decentralization and subsidiarity: Toward a theoretical reconciliation. *International Journal of Law and Economics, 19* (1), 21-53.

Castles, F.G. (1994). The wage earners welfare state revisited. *Australian Journal of Social Issues*, *29* (2), 120-145.

Castles, F. G. (1997). Historical and Comparative Perspectives on the Australian Welfare State: A Response to Rob Watts. *Australia and New Zealand Journal of Sociology*, *33*, 16–20.

Castles, F.G. & Uhr. J. (2005). Australia. Federal constraints and institutional innovations. In Obinger, H., Leibfried, A. and Castles, F.G., eds. *Federalism and the Welfare State. New world and European Experiences.* Cambridge: Cambridge University Press.

Crepaldi, C., Gambino, A., Baldi, S., Da Roit, B. & Ortigosa, E.R. (2007). *The role of minimum income for social inclusion in the European Union.* Retrieved at 12 March 2013 from http://www.europarl.europa.eu.

Dahlberg, M. & Edmark, K. (2008). Is there a "race-to-the-bottom" in the setting of welfare benefits? Evidence from a policy intervention. *Journal of Public Economics*, *92* (5-6), 1193-1209.

De Giorgi, G. & Pellizzari, M. (2006). *Welfare migration in Europe and the cost of a harmonized social assistance.* Hamburg: Econstor.

Department of Finance Canada (2013). *History of health and social transfers.* Retrieved at 11 April 2013 from http://www.fin.gc.ca

Eardley, T., Bradshaw, J., Ditch, J., Gough, I. & Whiteford, P. (1996). *Social assistance in OECD countries*. London: HMSO.

EMIN (2013a). *1th EMIN management committee meeting (27-02-2013).* European Minimum Income Network (EMIN). Summary provided at meeting.

Esping-Andersen, G. (1990). Three Worlds of Welfare Capitalism. In Pierson C., Castles F.G. (eds) (2006) *The Welfare State Reader* (pp. 160-174). Cambridge: Polity Press.

Europe Against Poverty Network (2013). *Poverty, what is it?* Retrieved at 12 March 2013 from http://www.eapn.org.

European Commission (2008). *Active inclusion of people excluded from the labour market.* Retrieved at 10 March 2013 from http://europa.eu.

European Commission (2009). *Belgium. minimum income schemes: panorama and assessment. A study of national policies.* Retrieved at 9 April 2013 from http://www.peer-review-social-inclusion.eu

European Commission (2010a). *The role of minimum income for social inclusion in the European Union 2007-2010.* Retrieved at 12 March 2013 from http://www.europarl.europa.eu

European Commission (2010b). *Euro barometer 72.1. Poverty and social exclusion.*
Retrieved at 12 March 2013 from http://http://ec.europa.eu

European Commission (2011a). *The social dimension of the Europe 2020 strategy. A report of the social protection committee.* Retrieved at 5 March 2013 from http://ec.europa.eu

European Commission (2011b). *The measurement of extreme poverty in the European Union.* Retrieved at 12 March 2013 from http://ec.europa.eu

European Commission (2013a). *Towards social investment for growth and cohesion. including implementing the European social fund 2014-2020.* Retrieved at 5 March 2013 from http://ec.europa.eu

European Commission (2013b). *Europe 2020.* Retrieved at 5 March 2013 from http://ec.europa.eu

European Commission (2013c). *SPEECH: Nothing to fear but fear itself: from depression to recovery in the 1930s and in today's European Union.* Retrieved at 14 March 2013 from http://europa.eu

European Council (1992). *Council recommendation on common criteria concerning sufficient resources and social assistance in social protection systems.* Retrieved at 10 March 2013 from http://eur-lex.europa.eu

European Council (2004*). Joint report on social inclusion*. Retrieved at 12 March 2013 from http://ec.europa.eu

European Union (2010). *Treaty of Maastricht on European Union*. Retrieved at 15 March 2013 from http://europa.eu

European Union (2013). *Commission proposes a social investment package for growth and cohesion.* Retrieved at 5 March 2013 from http://europa.eu

European Union (2008). *Consolidated version of the treaty on the functioning of the European Union.* Retrieved at 20 May 2013 from http://eur-lex.europa.eu

European Parliament (2010). *European parliament resolution of 20 October 2010 on the role of minimum income in combating poverty and promoting an inclusive society in Europe.* Retrieved at 12 March 2013 from http://www.europarl.europa.eu.

European Parliament (2013). *The principle of subsidiarity*. Retrieved at 20 May 2013 from http://www.europarl.europa.eu

Eurostat (2010). *Combating poverty and social exclusion 2010 edition. A statistical portrait of the European Union 2010*. Retrieved at 12 March 2013 from http://epp.eurostat.ec.europa.eu

Eurostat (2011). *Social protection. Social benefits per function.* Retrieved at 10 June 2013 from http://epp.eurostat.ec.europa.eu

Eurostat (2013). *Earnings in the business economy (average gross annual earnings of full time employees), 2008-2010*. Retrieved at 21 May 2013 from http://epp.eurostat.ec.europa.eu

Figari, F., Matsaganis, M. & Sutherland, H. (2012). Are European social safety nets tight enough? Coverage and adequacy of Minimum Income schemes in 14 EU countries. *International Journal of Social Welfare*, *22*, 3-14.

Finegold, K. (2005). The United States. Federalism and its counter-factuals. In Obinger, H., Leibfried, S. and Castles, F.G., eds. *Federalism and the Welfare State. New World and European Experiences.* Cambridge: Cambridge University Press.

Fiva, J.H. (2006). *An empirical analysis of decentralization, fiscal competition and welfare policy*. Trondheim: Norwegian University of Science and Technology.

Fleckenstein, T. (2008). Restructuring welfare for the unemployed: the Hartz legislation in Germany. *Journal of European Social Policy*, *18* (2), 177-188.

Frenkel, M. (1986). *Federal theory.* Canberra: Center for Research on Federal Financial Relations, the Australian National University.

Frazer, H. & Malier, E. (2009). *Minimum income schemes across member states.* Retrieved at 20 May 2013 at http://europa.ec.eu

Fuchs, M. (2007). *Social assistance – no, thanks? Empirical analysis of non-take-up in Austria 2003.* Kiel: Leibniz Information Centre for Economics. Retrieved at 9 April 2013 from http://www.econstor.eu

Goethe-Institut (2013). *Education and Culture.* Retrieved at 2 April 2013 from http://www.goethe.de

Gorden, R.H. & Cullen, J.B. (2011).Income redistribution in a Federal system of governments. *Journal of Public Economics*, *96*, 1100 – 1109.

Gough, I. (2001). Social assistance regimes: a cluster analysis. *Journal of European Social Policy*, *11* (2), 165-170.

Gough, I., Bradshaw, J., Ditch, J., Eardley, T. & Whiteford, P. (1997). Social assistance in OECD countries*. Journal of European Social Policy*, *7* (17), 16-43

Gouyette & Pestieau, (1999). Efficiency of the welfare state. *Kyklos*, *52*, 537-553.

Government of Canada (2013). *Canada's system of Government.* Retrieved at 30 March 2013 from http://www.canada.gc.ca

Critchley, P. (1995). *The European Union and the Principle of Subsidiarity.* Retrieved at 20 May 2013 from http://www.academia.edu

Harris, J.R. & Todaro, M.P. (1970). Migration, unemployment and development. A two-sector analysis. *American Economic Review*, *60*, 126-142.

Hölsch, K. & Kraus, M. (2006). European schemes of social assistance: an empirical analysis of set-ups and distributive impacts. *International Journal of Social Welfare*, *15*, 50-62.

Van Kersbergen K., & Verbeek, B. (1994). The Politics of Subsidiarity in the European Union, *Common Market Studies*, *32*, 215-216.

Kangas, O. (1994). The politics of social security: on regressions, qualitative comparisons, and cluster analysis. In: Janoski, T., Hicks, A.M., eds. *The comparative political economy of the welfare state*. Cambridge: Cambridge University press.

Kneebone, R.D. & White, K.G. (2009). Fiscal Retrenchment and Social Assistance in Canada. *Canadian Public Policy*, *35* (1), 21-40.

Korpi, W. & Palme, J. (1998). Inequality, and poverty in the Western Countries. *American Sociological Review*, *63* (5), 661-687.

Larsen, F. (2011). *The EU and federalism. Polities and policies compared.* Farnham: Ashgate. Trough UU library, E-book. Retrieved at 21 February 2013 from Utrecht University online library.

Lee, K. (1998). Uncertain income and redistribution in a federal system. *Journal of Public Economics*, *69* (3), 413-433.

Lessmann, C. (2011). Regional inequality and decentralization: an empirical analysis. *Environment and Planning*, *44*, 1363-1388.

Madama, I. (2013). Beyond continuity? Italian social assistance policies between institutional opportunities and agency. *International Journal of Social Welfare*, *22*, 58–68.

Meyer, B.D. (2000). *Do the poor move to receive higher welfare benefits?* Department of Economics and Institute for Policy Research. Retrieved at 30 May 2013 from http://128.135.46.110/sites/default/files/meyer_do_the_poor.pdf

Morel, N., Palier B. & Palme, J. (2012). *Towards a social investment welfare state? Ideas, policies and challenges.* Bristol: The policy press.

MISSOC (2013). *Comparative Tables Database.* Retrieved at 29 March 2013 from http//www.missoc.org

Moravczik, A. (2001). Federalism in the European Union: Rhetoric and Reality, in KalypsoNicolaïdis and Robert Howse, eds., *The Federal Vision: Legitimacy and Levels of Governance in the US and the EU*. Oxford: Oxford University Press. Retrieved at 21 February 2013 from http://www.princeton.edu/~amoravcs/library/federalism.pdf

Morel, N., Palier, B. & Palme, J. (2011). *Towards a social investment welfare state?* University of Bristol: The Policy Press.

Nelson, K. (2007). *Introducing SaMip: The Social Assistance and Minimum Income Protection Interim Dataset.* Retrieved at 26 May 2013 from http://www2.sofi.su.se/~kne/

Nelson, K. (2008). Minimum income protection and European Integration: Trends and Levels of Minimum Benefits in Comparative Perspective 1990-2005. *International Journal of Health Services*, *38* (1).

Nelson, K. (2009) Social assistance and minimum income benefits in old and new EU democracies. *International Journal of Social Welfare*. Blackwell Publishing

Norusis, M. (2013). *Cluster analysis.* IBM SPSS Statistics Guide. Retrieved at 15 March 2013 from http://www.norusis.com/pdf/SPC_v13.pdf.

Nistor, L. (2011). *Public Services and the European Union. Healthcare, Health Insurance and Education Services.* Houten: Springer.

Oates (1999). An essay on fiscal federalism. *Journal of Economic Literature*, *37*, 1120-1149.

Obinger, H. (1999). Minimum Income in Switzerland. *Journal of European Social Policy*, *9* (1), 29-47

Obinger, H., Armingeon, C., Bonoli, G. & Bertozzi, F. (2005). Switzerland: the marriage of direct democracy and federalism. In Obinger, H., Leibfried, S. and Castles, F.G., eds. *Federalism and the Welfare State. New World and European Experiences.* Cambridge: Cambridge University Press.

OECD (2013a). Population mobility. Retrieved at 20 June 2013 from http://ec.europa.eu

OECD (2013b). Territorial grids of OECD member countries. Retrieved at 17 June 2013 from http://www.oecd.org/gov/regional-policy/43428422.pdf

Razin, A & Wahba, J. (2011). *Welfare magnet hypothesis, fiscal burden and immigration. Skill selectivity.* Working Paper. Cambridge: National bureau of economic research.

Röhrs, S. & Stadelmann, D. (2010). *Mobility and local income redistribution*. Retrieved at 14 March 2013 from https://editorialexpress.com

Romesburg, H.C. (2004). *Cluster analysis for researchers*. California: Belmont.

Roux, C. (2008). Italy's path to federalism. Origins and paradoxes. *Journal of Modern Italian Studies, 13* (3), 325–339.

Samuelson, P. (1954). The Pure Theory of Public Expenditures. *The Review of Economics and Statistics, 36* (4), 387-389.

Saunders, P. & Deeming, C. (2011). The Impact of the Crisis on Australian Social Security Policy in Historical Perspectives. *Social Policy & Administration*, *45* (4), 371-388.

Schweizerische Eidgenossenschaft (2013). *The Federal State*. Retrieved at 4 April 2013 from http://www.admin.ch

Skocpol, T. (1992). State formation and social-policy in the United States. *American Behavioral Scientist*, *35* (4-5) 559-584.

Skocpol T. (1993) *Protecting soldiers and mothers: the political origins of social policy in the United States*, Cambridge, MA: Belknap Press of Harvard University Press.

Sinn, H.W. & Ochel, W. (2003). Social union, convergence and migration. *Journal of Common Market Studies*, *41* (5), 869-896

Social Situtaion Observatory. (2013) *Distribution of market income.* Retrieved at 5 June 2013 from http://www.socialsituation.eu

Sozialhilfe24 (2013). *Sozialhilfe.* Retrieved at 2 April 2013 from http://www.sozialhilfe24.de

SWIID (2011). The Standardized World Income Inequality Database. Retrieved at 6 June 2013 from http://myweb.uiowa.edu/fsolt/swiid/swiid.html

Tabin, J., Frauenfelder, A., Togni, C. & Keller, V. (2011). Whose poor? Social welfare and local political boundaries. *European Journal of Social Work*, *14* (4), 463-477.

Tiebout, C.M. (1956). A Pure Theory of Local Expenditures. *Journal of Political Economy*, *64* (5), 416-424.

United Nations (2013). *World Summit for Social Development. Programme of Action Chapter 2*. Retrieved at 12 March 2013 from http://www.un.org

U.S. Department of State (1997). *American Federalism, 1776 to 1997: Significant Events.* Retrieved at 6 April 2013 from http://infousa.state.gov

Viver Pi-Suñer, C. (2010). *The transition to a decentralized political system in Spain.* Ottawa: Forum of Federations. The global network on federalism. Retrieved at 4 April 2013 from http://www.forumfed.org

Wellisch, D. & Wildasin, D.E. (1996). Decentralized income redistribution and immigration. *European Economic Review*, *40*, 187-214.

Wildasin, D.E. (2006). Fiscal Competition, in Weingast, B. R. and Donald Wittman (eds.), *The Oxford Handbook of Political Economy*, Oxford University Press, Oxford, UK.

Wildasin, D.E. (2001). Income Redistribution in a Common Labour Market. *The American Economic Review, 81* (4), 757-774.

Appendix A: Cluster analyses degree of centralization using five values
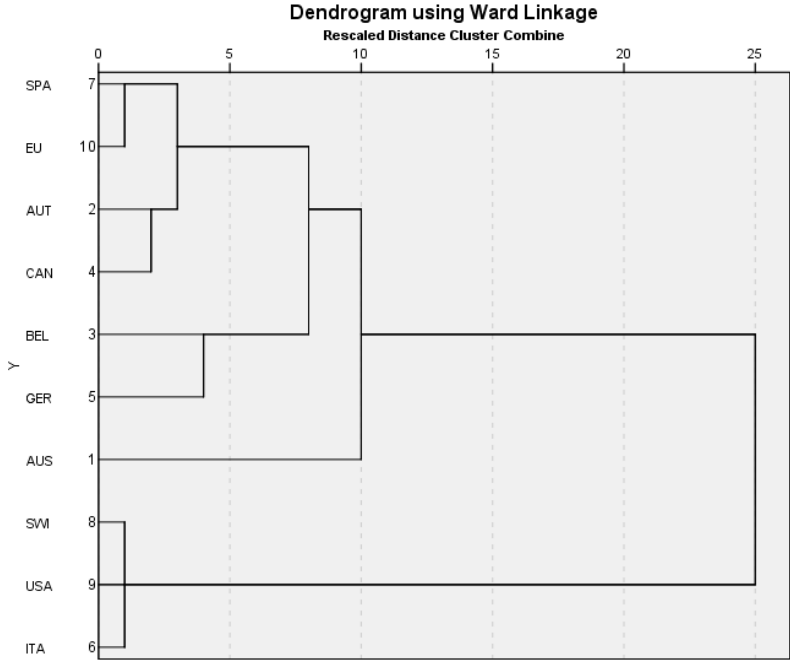
Figure 8: Five values Ward's method, squared Euclidean distances
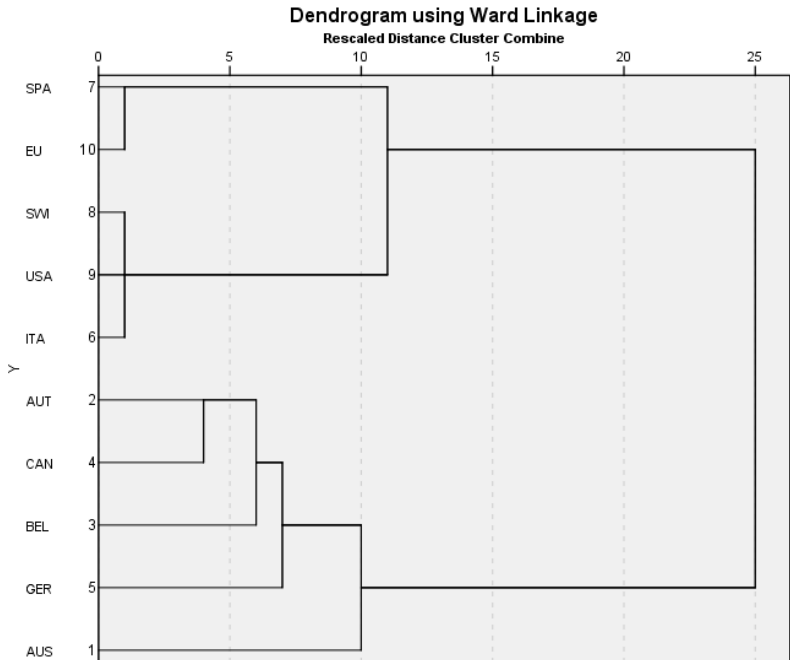
Figure 9: Five values Ward's method, Minskowski distances
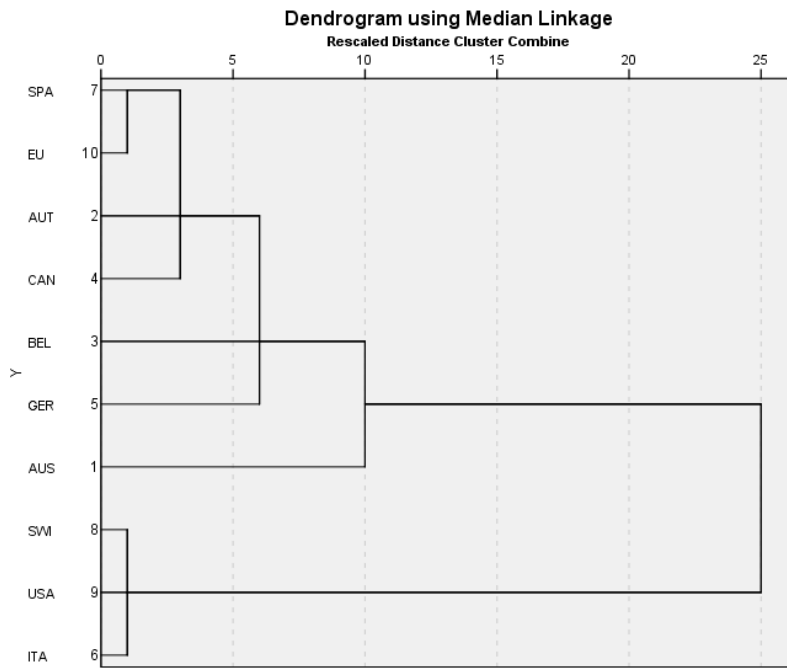
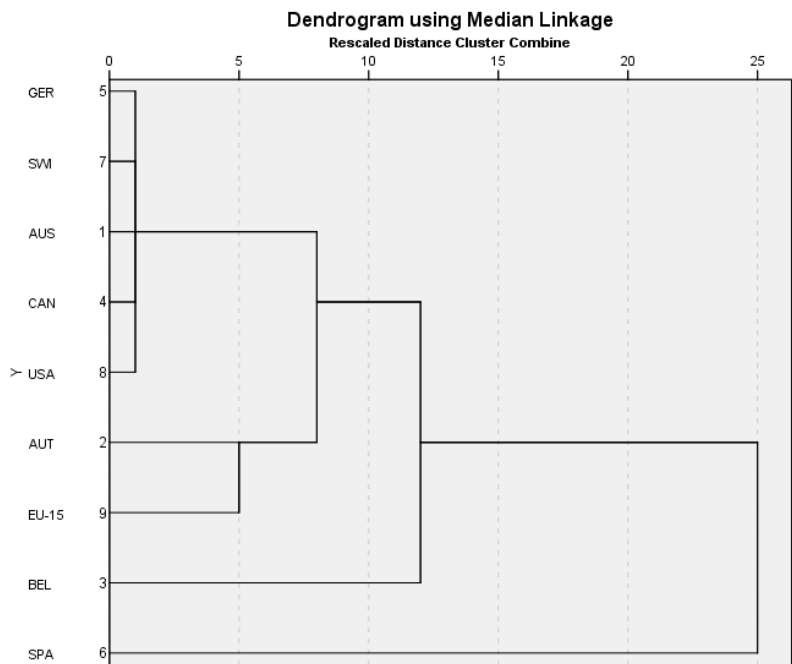*Figure 10: Five values Median clustering, squared Euclidean distances*
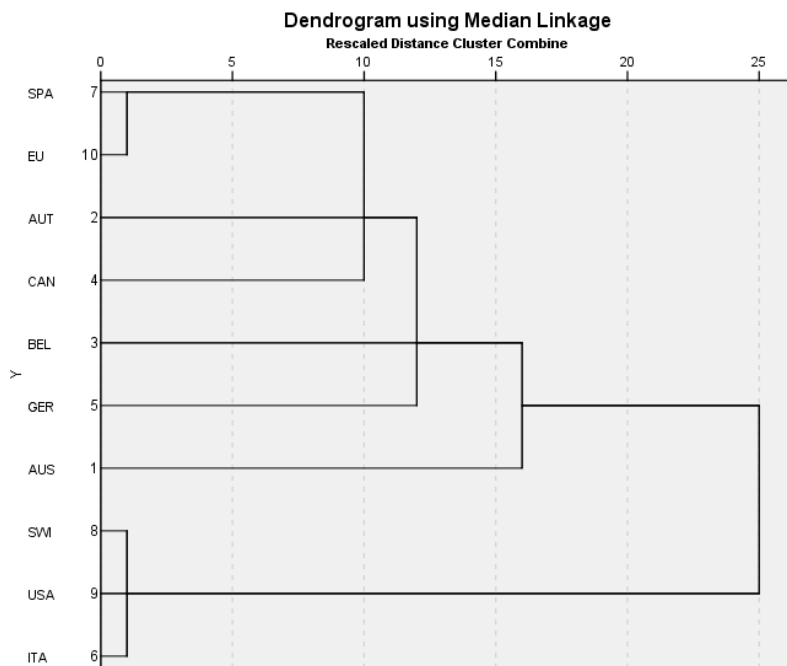
Figure 11: Five values Median clustering, Minkowski distances

Appendix B: Cluster analyses degree of centralization using 3 values
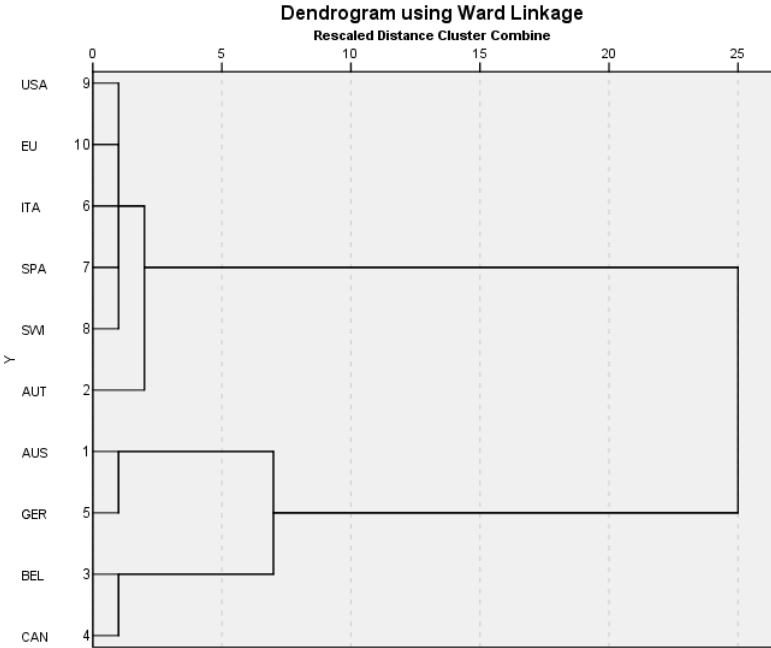
Figure 12: Three values, Ward's method, squared Euclidean distances
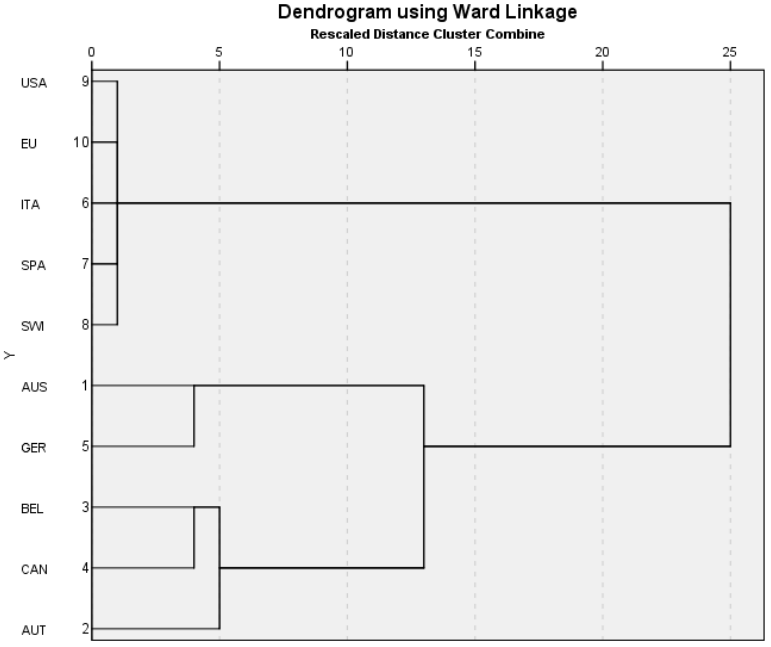
Figure 13: Three values, Ward's method, Minkowski distances
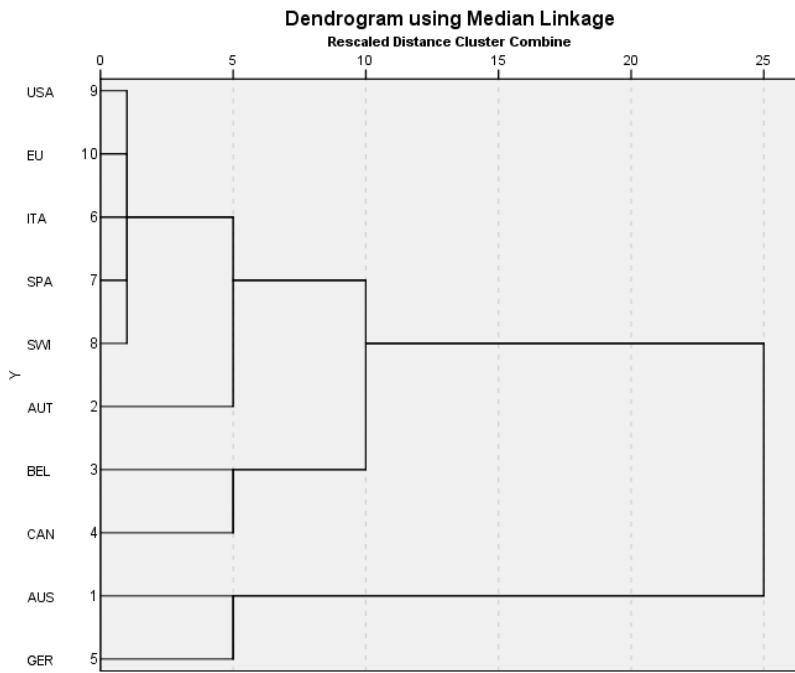
Figure 14: Three values, Median clustering, squared Euclidean distances
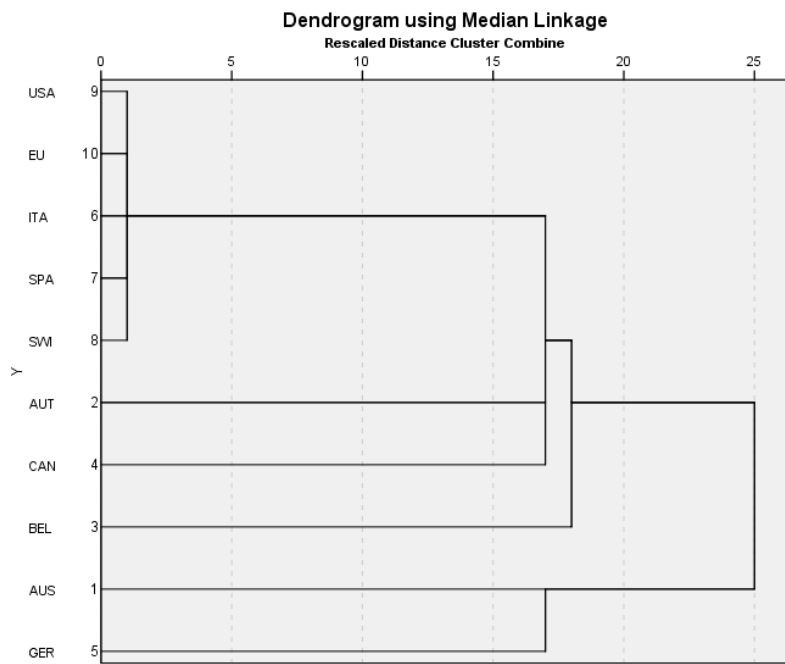
Figure 15: Three values, Median clustering, Minkowski distances

Appendix C: Cluster analyses mobility
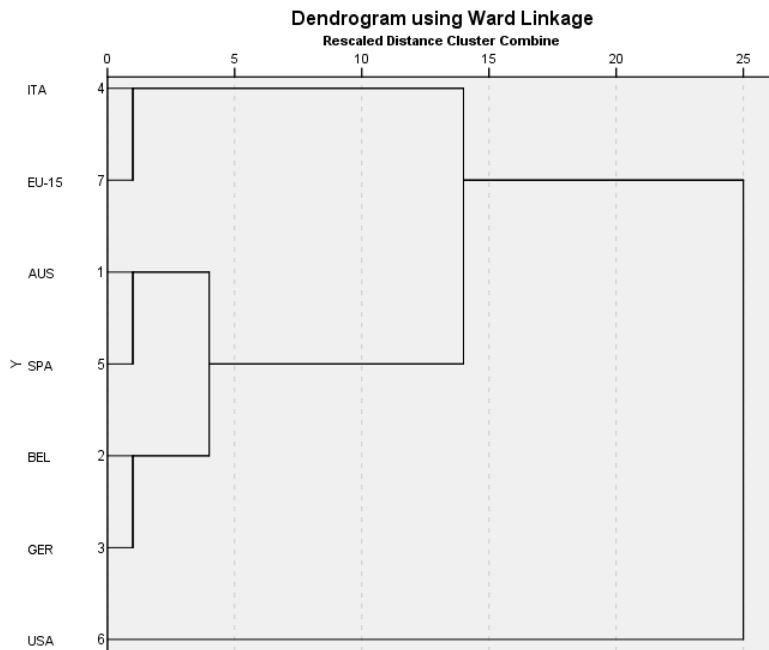
Figure 16: Mobility Ward's Method, Euclidean distances
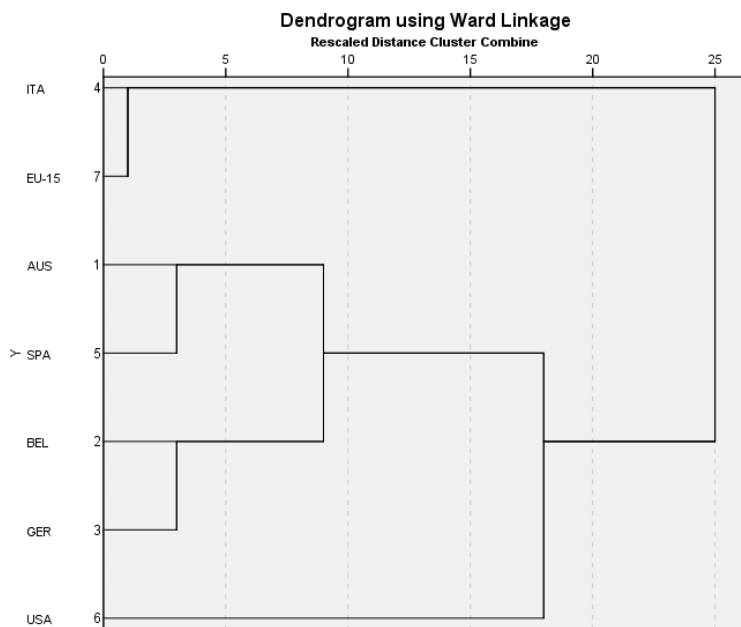
Figure 17: Mobility Ward's Method, Minkowski distances
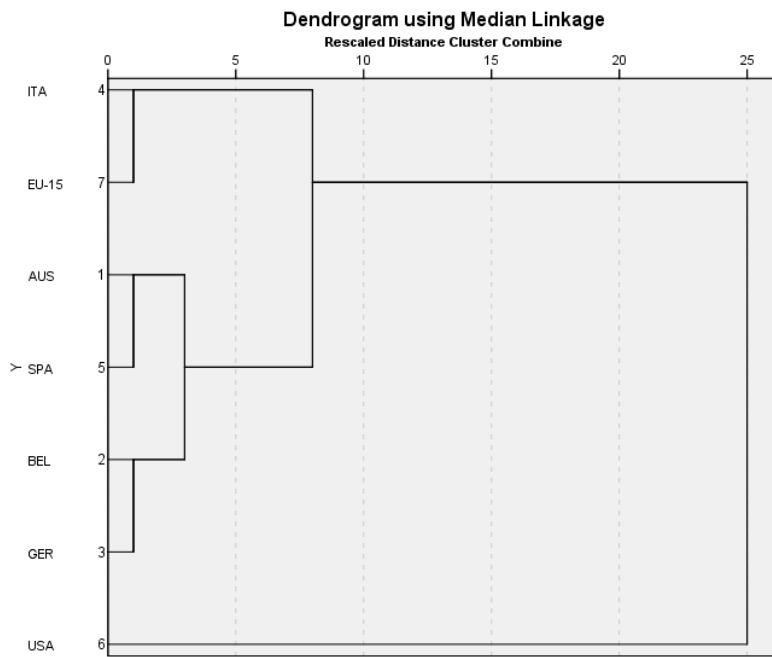
Figure 18 : Mobility Median clustering, Euclidean distances
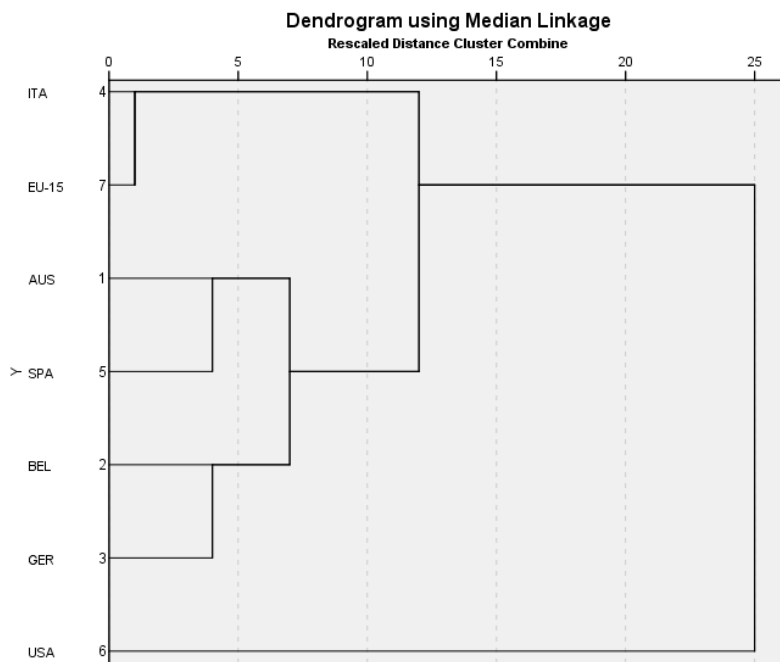
Figure 19: Mobility Median clustering, Minkowski distances

Appendix D: Cluster analyses benefit levels
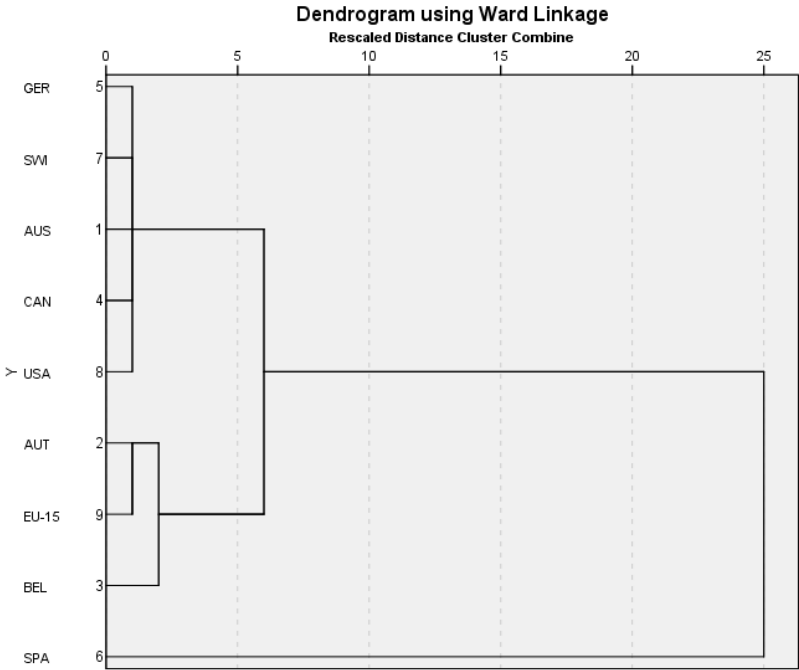
Figure 20: Benefit levels Ward's Method, Squared Euclidean distances
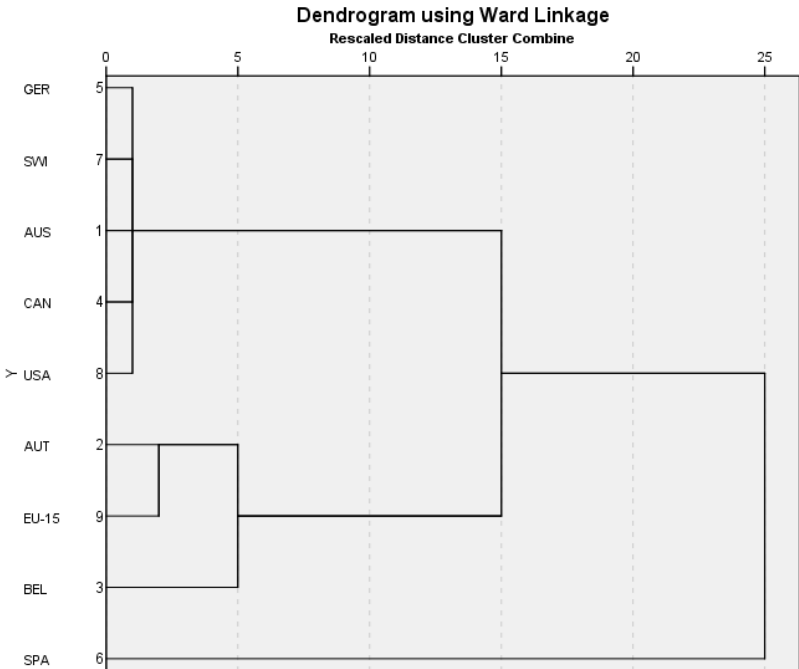
Figure 21 : Benefit levels Ward's Method, Minkowski distances
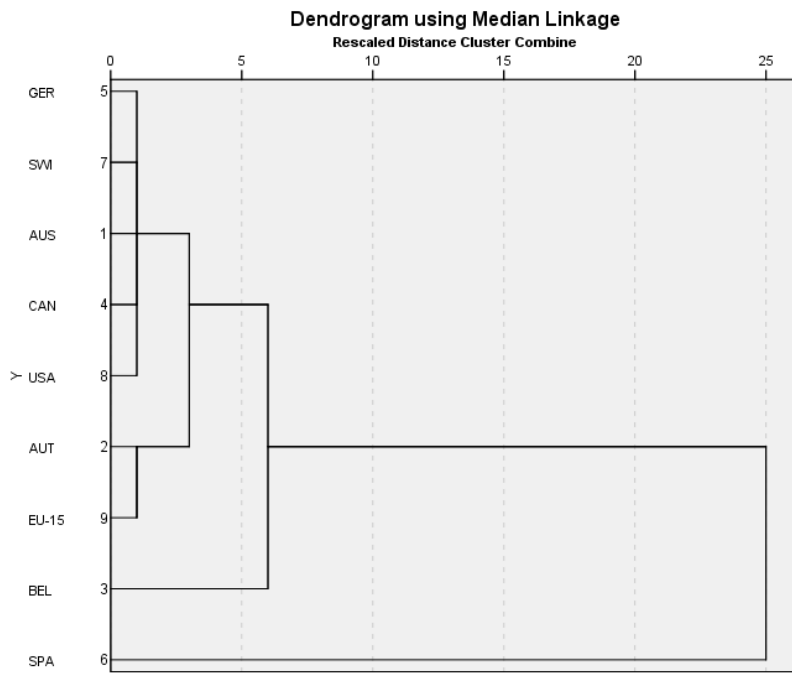
Figure 22: Benefit levels Median clustering, squared Euclidean distances

Figure 23: Benefit levels Median clustering, Minkowski distances

Appendix E: Cluster analyses effectiveness
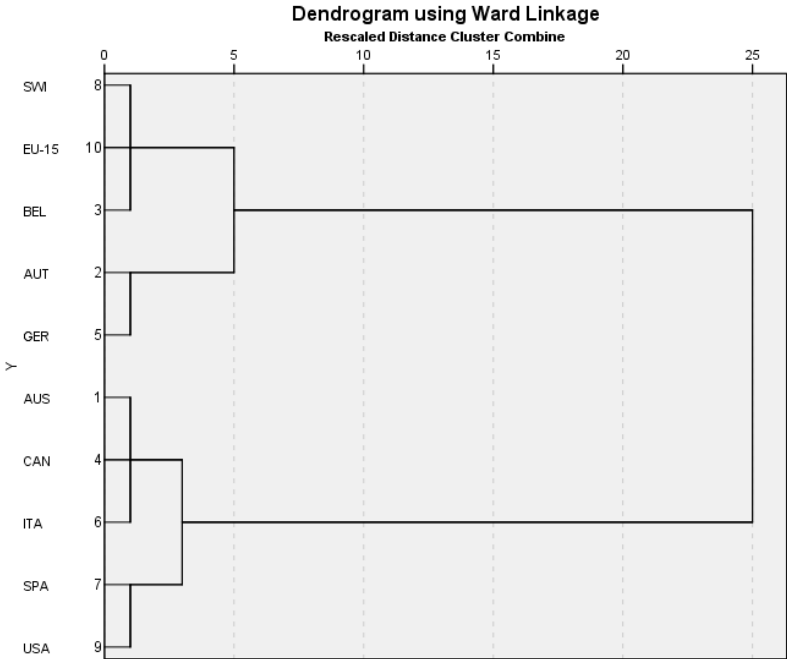
Figure 24: Ward's method, squared Euclidean distances
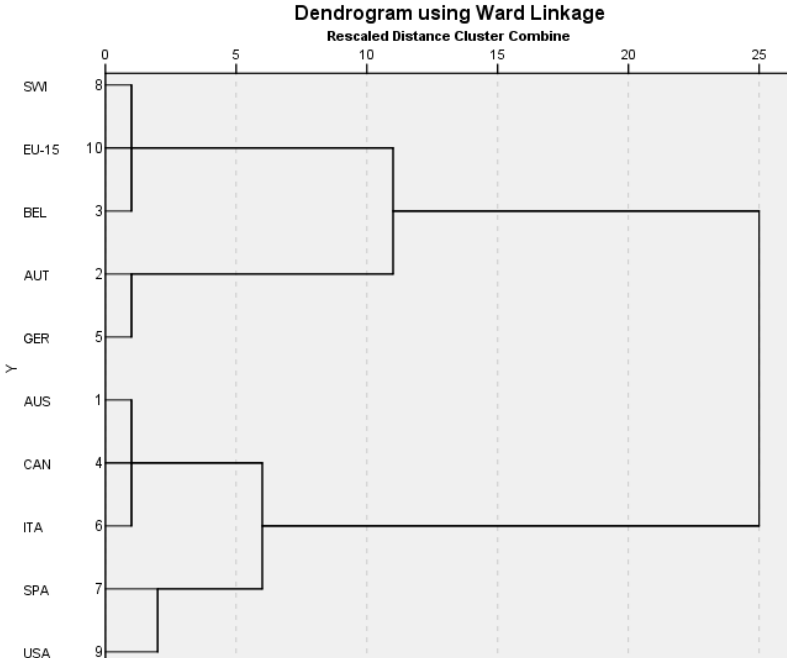
Figure 25: Ward's method, Minkowski distances
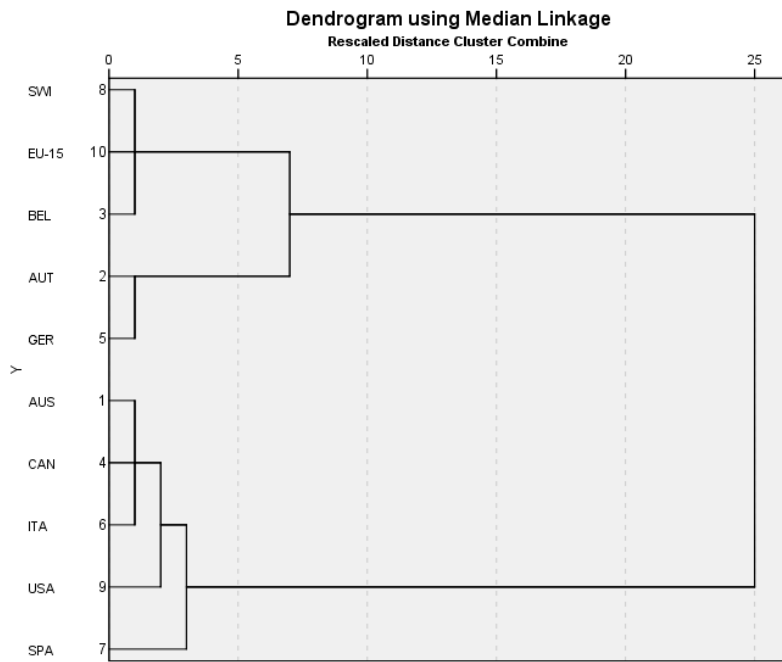
Figure 26: Median clustering, Squared Euclidean distances
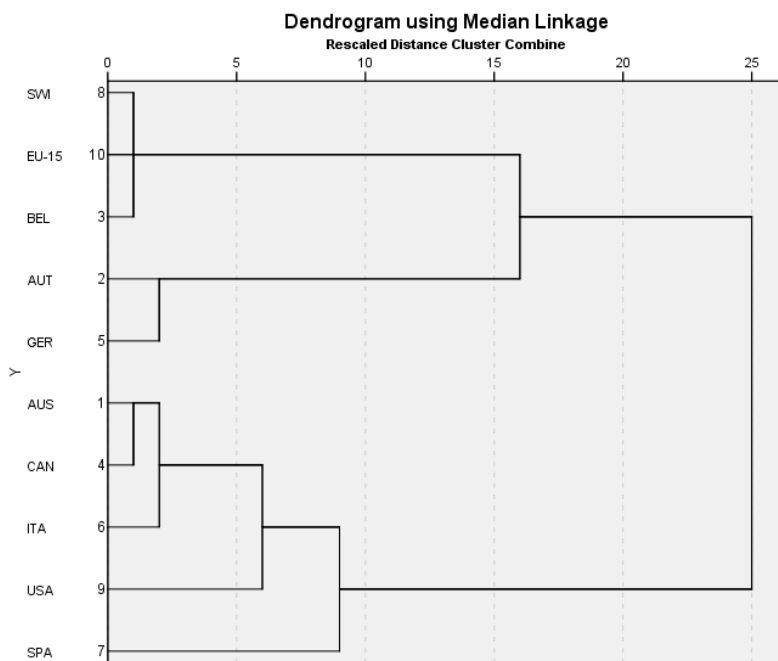
Figure 27: Median clustering, Minkowski distances

Appendix F: Cluster analyses efficiency
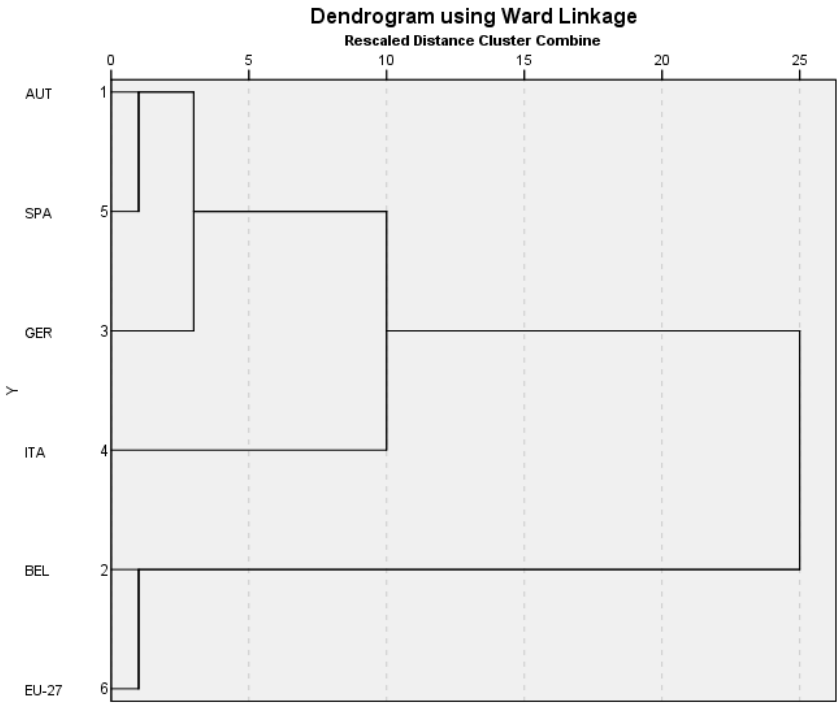
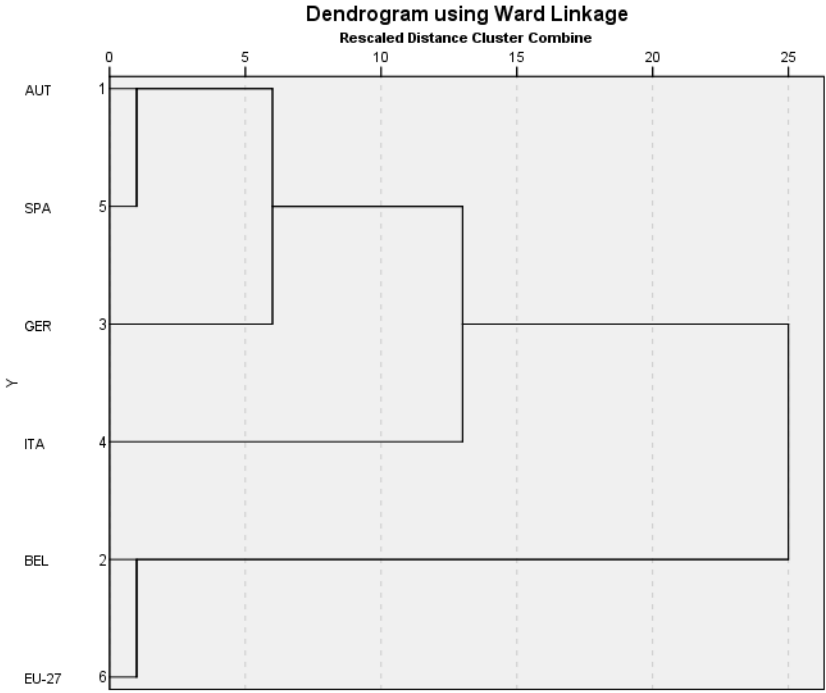*Figure 28: Ward's method, Squared Euclidean distances*
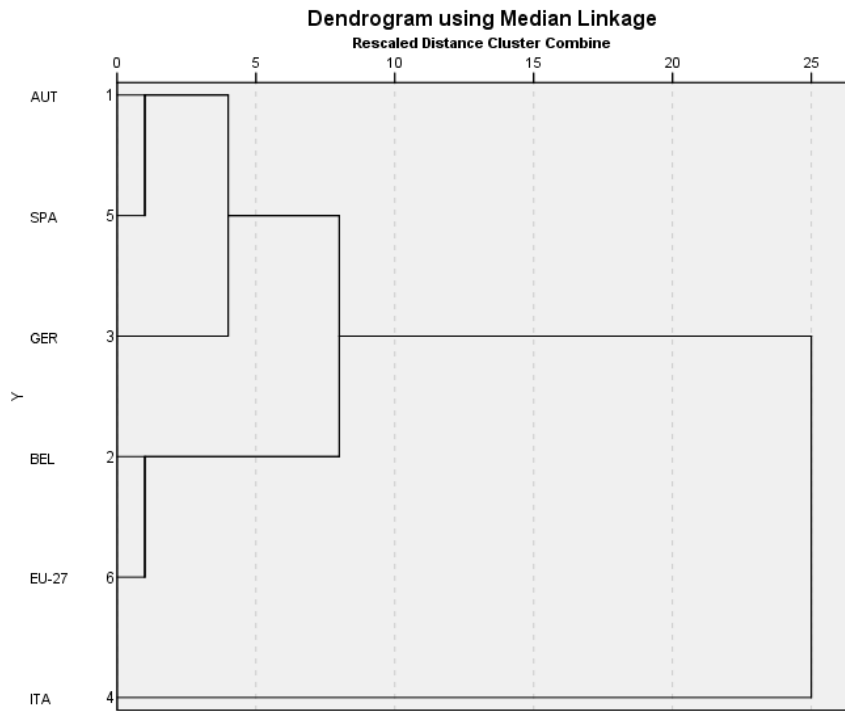

Figure 29: Ward's method, Minkowski distances
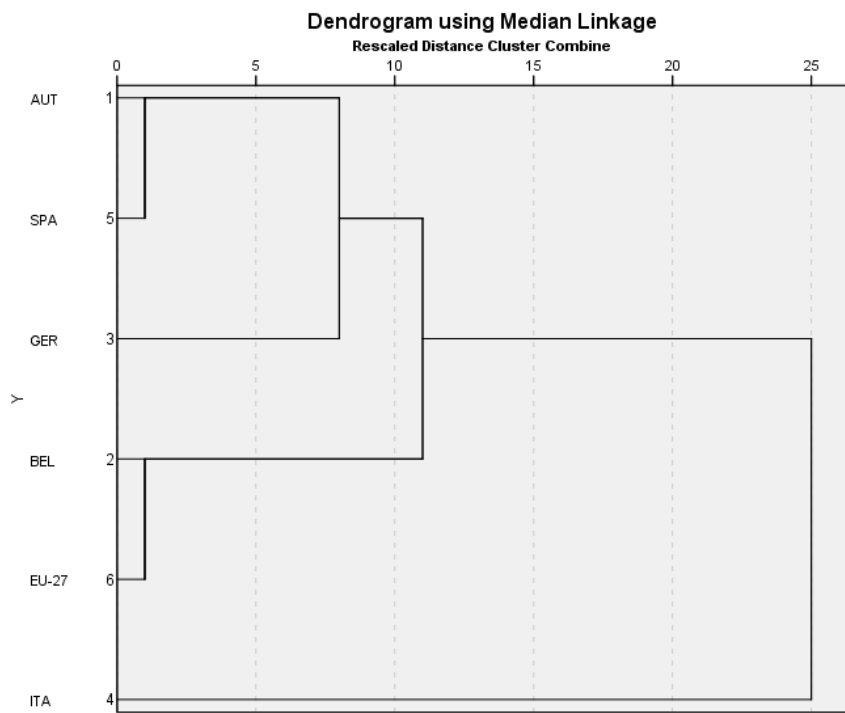
Figure 30: Median clustering, squared Euclidean distances

Figure 31: Median clustering, Minkowski distances