



# **Welfare State and Local Government: the Impact of Decentralization on Well-Being**

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# Welfare State and Local Government: the Impact of Decentralization on Well-being

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## Abstract

In recent decades, EU welfare systems have been undergoing continuous reforms in the light of financial pressures. In some countries, this has been coupled with the devolution of responsibilities from the central to local governments. The shifting of welfare systems to the local level may have positive or negative consequences. On the one hand, decentralization is expected to better tailor welfare policies to the population specific needs; on the other hand, especially in the presence of weak supervision by the central government, it may lead to negative implications like territorial fragmentations and inequalities. The main objective of the paper is to explore the relationship between welfare state typologies - with different degree of decentralization - and the well-being of citizens in a selection of European countries. We adopt an interdisciplinary perspective, trying to link the complexity of juridical aspects to the statistical evidence provided by different sources of official statistics and results of quantitative analyses.

## 1. Introduction

In recent decades, welfare systems in EU countries have been undergoing continuous reforms in the light of financial pressures. In most countries, this has been coupled with decentralization and the increased use of local partnerships and organizations in designing and implementing social policies. In fact, the devolution of responsibilities from the central government to local bodies (vertical subsidiarity) has often gone along with the pluralization of actors involved in the provision of social services (horizontal subsidiarity).

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The shifting of welfare systems to the local level may have positive or negative consequences. On the one hand, decentralization is expected to better tailor welfare policies to the population specific needs; on the other hand, especially in the presence of weak supervision by the central government, it may lead to negative implications like territorial fragmentations and inequalities (Andreotti et al., 2012).

According to some scholars, effectiveness of decentralization depends on the national welfare framework and especially on the form of the welfare state. For example, J. M. Sellers and A. Lidström (2007) argue that a strong territorial decentralization is essential for a public welfare state built around universalistic egalitarian ends (or Social Democratic welfare state, Esping-Andersen 1990), since it allows for assuring equal provision regardless of the place.

The paper aims to explore empirically the link between welfare state typologies - with different degree of decentralization - and the well-being of citizens in European countries.

To pursue this general purpose, we first define a set of indicators reflecting the different ways social protection services are delivered in each country (e.g. cash with respect to benefits in kind, means tested in comparison with non-means benefits etc.). Furthermore, we try to define quantitative indicators able to capture the heterogeneity of social protection provision within each country (decentralization). To disentangle the variety of existing situations in Europe, we advocate the opportunity of an interdisciplinary approach, with a special focus on the juridical aspects of decentralization. Finally, we attempt to characterize the statistical relationship between welfare state typologies - with different degrees of decentralization – and the fact of being a “poor” household.

The paper is organized as follows. The next section analyses the relations between welfare state policies, decentralization and social expenditure, from a comparative law perspective. Section 3 provides a brief overview of the data sources, trying to understand to what extent available official statistics help detecting different characteristics of social protection systems in Europe. Section 4 is devoted to the empirical analysis; the first part describes variables and indicators, the second part sets out the approach and methodology adopted, and presents main results. The final section provides commentary on the results in terms of their strengths and weaknesses.

## **2. The decentralization of European welfare states: juridical aspects**

Is it possible to build a synthetic index in order to evaluate the relation between welfare state policies, decentralization and social expenditure, from a comparative law perspective? The answer is complex.

The factors to be considered are numerous. The analysis of constitutional provisions alone is not satisfactory. Rather, there is the need to take into account the implementation of these constitutional

provisions as performed by decentralised entities, their judicial application (as defined by constitutional courts), the statutory law, some issues strictly related to taxing and spending power and –last but not least- the definition itself of social rights and social policies. The complexity of the answer – as noticed by Diez-Picazo (1999) – is even higher if we consider that the notion of ‘welfare state’ is a polysemous one and it may cover a variety of forms of economic and social organization, as well as ‘decentralisation’. For a long time – as pointed out by Paul Pierson (1995) more than 20 years ago -, “comparative work on federalism [was] rare and comparative research on the impact of federalism on social policy [was] non-existent”. Daniel Wincott (2006) also suggests that “Scholars disagree sharply over how to explain welfare state development. If agreement has been reached on anything in this highly contentious field it is that federalism inhibits welfare state development.” (emphasis added).

However, it is possible to examine different legal frameworks and to highlight some key-issues on the relationship between decentralisation and welfare state. In fact, any decentralisation process involves decisions concerning financial and funding criteria, with a relevant impact on social expenditure.

In this section we will analyse concisely three national legal systems (Germany, Italy, United Kingdom), with different historical, social and legal backgrounds and different forms of state. We will take into account three legal formants, as defined by Rodolfo Sacco’s seminal article, “Legal formants: A Dynamic Approach to Comparative Law”, (Sacco R. 1991). Consequently, we will examine the rules of constitutions and legislations, the case law (id est: the supreme/constitutional cases) and the scholarship, covering the period from 2000 until 2014.

## ***2.1 Three legal formants...***

### **A – The legislative formant (including the Constitution)**

#### **A.1 Germany**

In western Europe, social policies and social rights often benefit from a constitutional safeguard. However, the Basic Law for the Federal Republic of Germany (Grundgesetz), adopted after World War II, does not contain a broad protection of basic social rights, unlike the 1919 Weimar constitution; this can be explained in the light of the “failure” of the Weimar Constitution in that area.

Germany is a federation, with 16 States (Länder), bound together in a system called “cooperative federalism”. Art. 20 of the Grundgesetz declares expressly that “The Federal Republic of Germany is a democratic and social federal state”. Fundamental social rights are linked to constitutional principles. In this respect, it should be noted that the Basic Law contains a strong reference to human dignity (Art. 1, I c.: “Human dignity shall be inviolable. To respect and protect it shall be the duty of all state authority”).

Länder Constitutions contain several references to social rights. For example, the Constitution of the Free State of Bavaria qualifies the Land as “a cultural and social state governed by the rule of law” (Art. 3), and provides for the protection of family and the children (Art. 124 et sequitur), the right to education (Art. 128 et seq.) and the right to housing (Art. 106). Regarding the role of the Länder in guaranteeing social rights, the Basic Law provides a list of matters “under concurrent power” (konkurrierende Gesetzgebung). Among those matters, public welfare (except for the law on social care homes; 7), occupational health and safety, including unemployment insurance (12); the economic viability of hospitals and the regulation of hospital charges (19a). In those areas the federal state can legislate and “compress” the Länder’s power, conditioning the levels of social expenditure. Furthermore, the art. 72 provides that “On matters within the concurrent legislative power, the Länder shall have power to legislate so long as and to the extent that the Federation has not exercised its legislative power by enacting a law” and that “The Federation shall have the right to legislate on matters falling within clauses 4, 7, 11, 13, 15, 19a, 20, 22, 25 and 26 of paragraph (1) of Article 74, if and to the extent that the establishment of equivalent living conditions throughout the federal territory or the maintenance of legal or economic unity renders federal regulation necessary in the national interest” (emphasis added). As noted by Evers and Ewert (2011), historically in Germany the local administration had an essential role to ensure the social rights protection, but “in recent decades, there are strong indicators for a smooth and steady undermining of local self-governance. From the 1980s onwards, in several key-areas of welfare arrangements the traditional rather decentralised system of divided responsibilities among the different levels of governance came under pressure. The municipalities have been then evermore integrated into a system of increased central power”. However, this trend is not uniform: in the education field we are witnessing a potential relevant differentiation between Länder.

## *A.2 Italy*

The Italian Constitution, entered into force in 1948, declares that “The Republic is one and indivisible”. It recognizes and promotes local autonomies, and implements the fullest measure of administrative decentralization in those services, which depend on the State. The Republic adapts the principles and methods of its legislation to the requirements of autonomy and decentralization.” (art. 5). The Constitution provides for 4 categories of territorial bodies: regions, provinces, metropolitan cities and municipalities (Art. 114). The Italian Constitution includes a broad range of social rights. It ensures the protection of family and children (Art. 31), and defines health “as a fundamental right of the individual and as a collective interest, and guarantees free medical care to the indigent” (Art. 32). The Italian Constitution also affirms that “schools are open to everyone” and that “primary education, given for at

least eight years, is compulsory and free of tuition” (Art. 34, I and II c.). Moreover, “capable and deserving pupils, including those lacking financial resources, have the right to attain the highest levels of education. The Republic renders this right effective through scholarships, allowances to families and other benefits [...]” (Art. 34, III and IV c.). Art. 38 affirms that “every citizen unable to work and without the necessary means of subsistence is entitled to welfare support” and that “workers have the right to be assured adequate means for their needs and necessities in the case of accidents, illness, disability, old age and involuntary unemployment”. Persons with disability “are entitled to receive education and vocational training” (Art. 38, fourth par).

Art. 117, as amended in 2001 (Constitutional Law 3/2001) reads that “Legislative powers shall be vested in the State and the Regions in compliance with the Constitution and with the constraints deriving from EU legislation and international obligations”. In addition, this provision makes a list of matters for which the State has an exclusive competence. Within these competences it has to be stressed that the m) point of the list reserves for the State the “determination of the basic level of benefits relating to civil and social entitlements to be guaranteed throughout the national territory” (emphasis added). It defines the concurrent competences and includes among them “education, subject to the autonomy of educational institutions and with the exception of vocational education and training”, “health protection” and “complementary and supplementary social security”. The Constitution itself clarifies that “in the subject matters covered by concurring legislation legislative powers are vested in the Regions, except for the determination of the fundamental principles, which are laid down in State legislation”.

The constitutional provision above mentioned have been implemented by several State and regional legislative acts. For example, the right to health is guaranteed through the Servizio Sanitario nazionale (in English, National Health Service; State Law 833/1978), but every Region and the Autonomous Provinces of Trento and Bolzano/Bozen legislate on some aspects concerning the right to health implementation, assuming a large share of the related costs.

### *A. 3 United Kingdom*

Unlike Germany and Italy, the United Kingdom has no written Constitution; since the XVIII century, the relations between England, Ireland and Scotland were regulated by the so called Acts of Union. In last decades, the UK knew a relevant transformation, produced by the devolution process. The devolution started in 1997, with a referendum held in Scotland. The following year it was approved the 1998 Scotland Act, which set a Scottish Parliament and conferred to the Edinburgh parliament some taxation powers. In the same year, after the Good Friday Agreement, the Westminster parliament voted

the Northern Ireland Act, establishing the Northern Ireland Assembly. In 1999, the Government of Wales Act (which was later effectively superseded by the Government of Wales Act 2006) was enacted.

Scotland and Northern Ireland both have residual legislative powers; some 'nominated matters' are reserved to the Westminster regulation. The Northern Ireland devolution settlement gives legislative control over certain matters (known as 'transferred matters') to the Assembly, mainly in economic and social areas, which are entirely under control of Northern Ireland Assembly. The Scottish situation is more complex. In 2012, the Westminster parliament voted another Scotland Act. Namely, it gave the Scottish parliament more extra powers over taxation. For the purpose of this analysis, it is worth recalling that, in 2014, a popular vote rejected the independence of Scotland, and in March 2016 a new act conferred to Scottish authorities control over welfare fields. In particular, the Part 3 of the Act refers to "Disability, industrial injuries and carer's benefits", to "Benefits to maternity, funeral and heating expenses", to "discretionary housing payments", to "discretionary payments and assistance", to "welfare foods" and to "Universal credit". Before the 2016 Scotland Act's approval, a consistent part of the welfare benefits was not devolved and this could undermine the Scottish autonomy. The more relevant Scottish legislative act on social policies funding is the Welfare Funds (Scotland) Act, passed by the Parliament on March 2015; the Welfare Funds (Scotland) Regulation 2016 laid in the Scottish Parliament on late 2015.

In 2012, the Welfare Reform reformed a relevant part of the UK welfare system, having the goal to reduce the social expenditure; the Welfare Act had an impact over the devolved territories too.

With specific regard to England, an attempt was made to promote a 'regional devolution', but in 2010 the proposed reform stalled.

## **B) The Jurisprudential formant**

Turning our attention to the second legal formant, it is worth noting that, in UK, the Supreme Court's judicial activity on Scottish social policies is not sufficiently developed and no notable case law can be analysed.

In the German legal framework, the BVerfG and the constitutional courts of the Länder have contributed to providing a full protection of social rights and developing a harmonic system of social policies. There is a very large amount of relevant cases, and for this reason a detailed examination cannot be carried out. We limit ourselves to some general remarks. In last years, the Karlsruhe judges adopted several decisions aimed to assure the local autonomy in social policies implementation. For example, with decision BVerfG 2. Sen. dec. 20.12.2007 – 2 BvR 2433/04; 2 BvR 2434/04, the Court, allowing the

appeal of numerous municipalities and districts (in German, Kreise), protected the local bodies' autonomy (constitutionally guaranteed) with reference to unemployment allowance. With its decision, the Court stopped the attempt to centralise this kind of benefit, albeit it was decided by federal legislator on the basis of presumed and insufficiently argued 'rationalization needs'. More recently, in September 2014, the BVerfG held that a federal law concerning the joint management - by local bodies and job centres - of unemployed help centres was compliant with the art. 91 GG (BVerfG, dec.. 7 september 2014 - 2 BvR 1641/11)

Similarly to the German one, the Italian Corte costituzionale decided a lot of cases regarding the State-Regions relation. After the above mentioned 2001 Constitutional reform, the majority of the Corte costituzionale case law is composed by decisions regarding this issue, influencing even our research field. As an example, with reference to the social policies' financing, the Corte declared that the Fondo Nazionale per le Politiche Sociali (National Fund for Social Policies) was unconstitutional and was in breach of Art. 119 of the Italian Constitution. However, the Court 'saved' the National Fund, because it partially funded national competences, until the art. 119 full implementation (sent. 423/2004). With regards to the already mentioned basic level of benefits relating to social entitlements (guaranteed by art. 117 of the Italian Constitution), the Court declared that it is a "cross-cutting competence" in multiple decisions. Actually the Court 'swung' between a 'extensive interpretation' and a 'restrictive interpretation'. It has to be remarked that the Italian government, until June 2016, has not defined the 'livelli essenziali di assistenza sociale' (in English, basic level of social care); the Court underlined this lack of implementation in several decision (for an example, sent. 296/2012).

### **C) The 'scholarly formant'**

The legislative formant and the jurisprudential formant illustrate quite well the complexity of the welfare state/decentralisation relations. In particular, we can remark that there's a constant 'centrifugal vs. centripetal dialectic' in each of the three legal frameworks we examined.

What the third legal formant says us about it?

The legal scholars underlined often the relation between the German 'cooperative federalism' and welfare state: usually the German system is considered as strongly coordinated. But is the German welfare state capable to guarantee the uniformity of living conditions? In a recent work Jeffery C. et al (2014), propose an articulated answer. Based on an empirical analysis, this contribute suggests that the German unitarian paradigm is now not totally satisfactory: after over 30 years of studies on Länder autonomy and diversification, an alternative paradigm can be recognized. And this new paradigm "in part recognizes

diversity that has always existed but rarely been recognized, and in part reflects the blindingly obvious: that after German unification in 1990 Germany exhibits much wider regional disparities on most socio-economic and political indicators than before 1990”.

In the Italian context, two legal scholars, Casamassima and Biondi Dal Monte (2014), have examined the social services framework, marking that this area is characterized by high dynamism. In some matters, the Italian Regions left their mark, but the authors pointed out that it lacks a full implementation of Art. 119 Cost. and this caused a certain “dependence” of the Regions by the State. In particular, the financial resources of the State fund several regional policies regarding the social rights protection. The economic crisis partially changed this context, but Casamassima and Biondi Dal Monte see as a priority the definition of the basic level for social assistance by the State (see Art. 117, II, l. m of the Italian Constitution) and a new planning procedure.

In the UK some authors underlined the danger of an excessive devolution concerning social rights, for instance, as pointed out by Bogdanor (2009) “Devolution allows the non-English parts of the Kingdom to develop their own distinctive priorities in public policy. But the Welfare State was founded on the principle that the needs of the citizen should be determined not locally, but by central government, which alone could balance the requirements of different parts of the Kingdom, and the needs of those living in different parts of the Kingdom”. Recently, some authors – like Richard Parry (2007) - examined the exercise of the right to social security in political system without national uniformity of provisions because multi-level system of governance, concluding that the devolution’s contribute can be “to give the possibly of political resistance to the loss of universalism at the margin between contested and partially contested rights”. Other scholars – like Gill Scott and Sharon Wright - have focused the attention on the opportunities for significant innovation and differentiation in social policies, remarking that the ‘good society’ which many Scotland’s politicians hoped for is a substantial challenge, still not yet translated in to tangible political outcomes.

As above underlined, the tension between decentralization and welfare state is still a current issue. In next months, this tension – deeply political and highly dialectical – could see new developments. If the German context is relatively stable, in UK the Selected Committee on the Constitution of the House of Lords published a report (“The Union and Devolution”) which highlights some critical points concerning the devolution and the inter-governmental relation, even with regards to the welfare state and suggesting some possible solutions. In Italy, a constitutional referendum will be held on late 2016. if approved, the constitutional reform proposed by PM Matteo Renzi would introduce in the Italian framework new asymmetries regarding the regional welfare systems.

### **3. Social protection accounting in European official statistics**

Previous section provided a concise insight into the national legal systems of three EU countries characterized by deeply different forms of State, historical and legal backgrounds. The analysis shows how complex it is to compare national welfare systems from the law perspective. In particular, it pointed out how the analysis of constitutional provision alone is not satisfactory and how it is necessary to take into account the way decentralized entities actually implement constitutional provisions. Statistics on social protection accounting (e.g. per capita expenditure or the different share of social expenditure among different risks or needs) may help to understand how social policies are performed and constitutional provisions actually pursued. In this section, we provide a brief overview of the main data sources on social protection accounting provided by EU official statistics. The overall aim is to assess what kind of information can be derived from official statistics and to point out common features and main differences among the described data sources. Being such data sources harmonised at EU level, the analysis refer to all EU countries.

A universally accepted definition of the scope of social protection does not exist. Therefore, European official statisticians established a definition of social protection considering the needs of both statistics producers and users. Such definition was proposed along with the development of ESPROSS (European System of Integrated Social Protection Statistics), a framework created in the late 1970's by Eurostat and the EU member states to allow international comparison among administrative national data on social protection (Eurostat, 2011a).

ESPROSS contains macro statistics on social protection expenditure and receipts, detailed by several criteria. The core system harmonizes with National Accounts (NAs) concepts, so that it is possible to trace ESPROSS receipts and outlays back to NAs' flows and aggregates. In fact, ESPROSS provides one of the more relevant example of NAs' satellite accounts (Eurostat, 2013a).

At international level, further three main data sources provide macro statistics on social protection expenditure: SOCX (Social expenditure database) by OECD and SSI (Social Security Inquiry) by ILO. These data are particularly appropriate to compare different models of welfares states, being international comparability their primary objective. Both SOCX and SSI mainly incorporate ESPROSS statistics when dealing with European countries.

National statistical offices disseminate also micro data on the supply and use of social protection services. However, these statistics seldom permit sound comparisons among countries. Data are fragmented and often inconsistent, their availability and quality vary across countries. This depends on the fact that social protection programs are carried out by a multitude of actors (public, private or non-

profit institutions) at different level of government (central, local) and a systematic and shared data gathering methodology is still missing. Only harmonised surveys (like the EU Labour force survey or EU Statistics on Income and Living conditions, Eusilc) can provide internationally comparable details on social protection. For example, Eusilc data may allow one to measure the effect of social transfers on the reduction of poverty (Social Protection Committee 2012) or to point out the characteristics of population covered by specific social policies. However, based on available micro data, it is not possible to extend international comparison to other relevant aspects of social protection systems, such as the funding and supply of social services or benefits. The awareness of the importance of comprehensive, up to date, comparable and accessible data on social protection has pushed international bodies to promote the stocktaking of existing social protection international data and indicators both at the macro and micro level (Bonnet, F. and L. Tessier, 2013).

### ***3.1 National Accounts***

NAs organize monetary transactions between purchasers and sellers into a set of integrated and interdependent accounts. Each account presents the receipts (or resources) and the expenditure (or uses) recorded by groups of transactors (institutional sectors) in a specific stage of the economic process. The main institutional sectors are the following: Non-Financial Corporations (NFC), Financial corporations (FC), General Government (GG), Households (HH) and Non-Profit Institutions Serving Households (NPISHs).

NAs record social protection expenditure under the “Social benefits” category. According to the ESA 2010 definition “Social benefits are transfers to households, in cash or in kind, intended to relieve them from the financial burden of a number of risk or needs, made through collectively organized schemes, or outside such schemes by government units and NPISHs; they include payments from general government to producers which individually benefit households and which are made in the context of social risks or needs” (ESA 2010 §4.83). Risks or needs covered by social benefits are the following: sickness, invalidity/disability, occupational accident or disease, old age, survivors, maternity, family, promotion of employment, unemployment, housing, education, general neediness (ESA 2010 §4.84, Eurostat, 2013a).

In particular, NAs distinguish two categories: “Social benefits other than social transfers in kind” and “Social transfers in kind”. The former are current social transfers benefiting households (retirement pensions, unemployment allowances, family and maternity allowances, sick-leave per diem allowances) and are recorded in the Secondary distribution of income account. The latter include the expenditure of GG and NPISHs on the provision of various individual services (healthcare, education etc.) but also the

reimbursement of purchases of goods and services such as medical consultations and medicines, as well as housing allowances; these transactions are recorded in the Redistribution of income account.

“Social benefits other than social transfers in kind” and “Social transfers in kind” contribute to determine the amount of two significant NAs’ balancing items, namely “Disposable income” and “Adjusted disposable income”. Disposable income is the balancing item of the Secondary distribution of income account. It equals gross primary income minus current monetary transfers paid (e.g. taxes on income and wealth or social contributions), plus monetary transfers received (among which social benefits in cash). Disposable income shows how much can be consumed without running down assets or incurring liabilities. However, it is worth reminding that Disposable income is not appropriate for comparing people’s material well-being across countries with different welfare systems. In fact, depending on the type of social protection systems, a relevant share of social protection would be allocated through social transfers in kind. To face this problem, SNA 93 introduced the Redistribution of income in kind account whose balancing item, Adjusted disposable income, is equal to Disposable income plus social transfers in kind.

NAs allow one to distinguish various typologies of social benefits. Particularly, “Social benefits other than social transfers in kind” break down into three categories, namely “Social insurance benefits in cash”, “Other social insurance benefits” and “Social assistance benefits”. The first category includes benefits paid out by social security plans organized by government and by private pension plans in return for prior contributions (ESA 20101, § 4.103, Eurostat, 2013a). The second refers to benefits payable by employers in the contest of other employment social insurance schemes (ESA 20101, § 4.104, Eurostat, 2013a). The third category identifies benefits provided without any previous contribution of beneficiaries (ESA 2010 § 4.105, Eurostat, 2013a).

Within “social transfers in kind”, NAs distinguish individual goods and services provided directly to the beneficiaries by non-market producers (i.e. by GG or NPISHs) from individual goods and services provided directly by market produces on behalf of GG or NPISHs (ESA 2010 § 4.109, Eurostat, 2013a).

NAs theoretically allow one to classify the different kinds of social benefits according to the different types of paying sectors, i.e. by institutional sectors and by the subsectors thereof (e.g. Private/Public within Non-financial corporations or Central/Local governments within General Government). Finally, Eurostat publishes “Social benefits other than social transfers” by Nuts 2 (Eurostat 2013b).

### ***3.2 European System of Integrated Social Protection Statistics***

According to ESPROSS, social protection is defined as encompassing “all interventions from public or private bodies directed to relieve households and individuals of the burden of a defined set of risks and needs, provided that there is neither a simultaneous reciprocal nor an individual arrangement involved” (Eurostat, 2011a, pag. 9). The categories of risks and needs covered are eight, namely: Sickness/health care, Disability, Old age, Survivors, Family/children, Unemployment, Housing, Social exclusion not elsewhere classified.

ESPROSS is composed of the core system and of modules. The core system records the accounting of social protection schemes distinguishing receipts (sources of financing) from expenditures (uses of financing). The modules contain supplementary statistical information on particular aspects of social protection, namely pensions' beneficiaries and net social benefits.

Receipts are analysed according to the nature of the payment (social contribution, general government contributions, transfers from other schemes and other receipts) as well as to the kind of paying institutional sector. Institutional sectors correspond exactly to the NAs' ones. Expenditures include social benefits but also administration costs (costs charged to the scheme for its management and administration) and other miscellaneous costs.

Social benefits are further analysed by function and by type. The function identifies the primary purpose for which social protection is provided (ESPROSS 2011a, § 109), i.e. the risk or need covered. The type of benefit refers to the form in which the protection is provided. In particular, ESPROSS distinguishes between benefits paid in cash (further detailing between those paid at regular intervals or in the form of a lump sum) and benefits in kind (ESPROSS 2011a, § 110-115). Finally, Social benefits are broken down between means-tested and non means-tested benefits. The former are social benefits which are explicitly or implicitly conditional on the beneficiary's income and/or wealth falling below a specified level (ESPROSS 2011a, § 116, § 117).

### ***3.3 Social Expenditure Database (SOCX)***

The OECD database was developed in the 1990s as a tool for monitoring trends in aggregate social expenditure and analysing changes in its composition.

OECD defines social expenditures as “ the provision by public and private institutions of benefits to, and financial contributions targeted at, households and individuals in order to provide support during circumstances which adversely affect their welfare, provided that the provision of the benefits and financial contributions constitutes neither a direct payment for a particular good or service nor an individual contract or transfer” (Adema et al., 2011, p. 90).

OECD distinguishes nine social different policy areas, which only approximately correspond to the risks/needs specified by NAs and ESPROSS: Old age, Survivors, Incapacity-related benefits, Health, family, Active labour market programmes, Unemployment, Housing, and Other social policy areas.

Social expenditure comprises cash benefits, direct in-kind provision of goods and services (benefits in kind), and tax breaks with social purposes. These last include expenditures made through the tax system and can take different forms: exemptions (income excluded from the tax base); rate reliefs (tax rate reduction for specific groups) and tax deferrals.

Social benefits are classified as public when general government (central, state/local governments, social security funds) controls the relevant financial flows. All social benefits not provided by general government are considered as private. Private social benefits further break down into two sub-categories: mandatory private social expenditure, which includes social support stipulated by legislation but operated through the private sector (e.g. direct sickness benefits paid by employers); voluntary private social expenditure, which includes benefits accruing from privately operated programs. OECD publishes also net social expenditure, which accounts for how tax systems affect public and private spending on social protection. Broadly speaking, this happens through direct taxation of benefit income, indirect taxation of consumption by benefit recipients and tax breaks for social purposes (Adema et al. 2011). This effect can be considerable and vary across countries.

### ***3.4 EU Statistics on Income and Living conditions, EUSILC***

EUSILC is the reference source for comparative statistics on income distribution and social inclusion in the European Union. The reference population includes all private households and their current members residing in the territory of the countries at the time of data collection.

EUSILC collects information on social benefits received by households and their members.

Social benefits are defined as “current transfers received during the income reference period by households intended to relieve them from the financial burden of a number of risk or needs, made through collectively organised schemes, or outside such schemes by government units and NPISHs”. The Social benefits collected at individual level are the following: unemployment benefits, old-age benefits, survivor’ benefits, sickness benefits, disability benefits, and education related allowances.

### ***3.5 Common feature and main differences***

Differences among the above described data sources are due to two main reasons. The first concerns the different boundaries of the social domain, i.e. the distinction between social spending and not-social spending. The second relates to the breaking down of social expenditure among functions.

NAs and ESPROSS have undoubtedly a more homogeneous base and comparable data although some differences are present (Eurostat 2011b). A major difference is that NAs include Education in the social domain while ESPROSS does not. Furthermore, ESPROSS' social benefits cover both current and capital transfers whereas NAs' definition refers to current transfers only. Finally, NAs' transfers in kind cover also transfers, which do not have a social protection objective. For example, they include expenditures on sport, cultural and recreational activities (Eurostat 2011a, p. 65). The NAs' level for total expenditure on social protection is somewhat higher than in the ESPROSS. ESPROSS statistics provide undoubtedly a richer analysis of social protection accounting than NAs do. However, NAs have the advantage of directly linking changes in social protection expenditure to changes in HH's disposable income.

The scope of SOCX is arguably larger than that of NAs and ESPROSS. The first point is that SOCX's expenditure includes also lost revenues due to tax breaks with social purposes (Adema et al. 2011, p. 110). Furthermore, differently from NAs and ESPROSS, Socx does not limit to consider expenditures that can be "allocated" to individuals or families (individual consumptions). On the contrary, it includes all spending on public health expenditures or labour market programs like investment in medical facilities, preventive health initiatives or health education and training. Like Espross and differently from NAs, SOCX does not include Education in the social domain (except pre-primary education, which is recorded under the Family policy area). All ESPROSS social protection benefits are included in SOCX with the only exception of some expenditures for disability, sickness and unemployment that are directly taken from thematic OECD databases. In addition, SOCX applies a different categorization of social benefits.

Although EUSILC definition of social benefits is based on ESPROSS' concepts (Eurostat 2008), some differences are present. EUSILC social benefits include the function Education while ESSPROS does not. The ESSPROS definition covers both current and capital transfers whereas the EU-SILC definition covers current transfers only. Finally, the EUSILC benefits include cash benefits only with the only exception of housing.

#### **4. Empirical analysis**

The overall aim of the paper is to explore the relationship between welfare state typologies - with different degree of decentralization - and the well-being of citizens in European countries. In this section, we report the results of a statistical analysis aimed at assessing whether decentralization is a significant

predictor of the probability of being a poor household. To this end, we estimate pooled logistic regression and multilevel logit models, for a sample of 127324 households selected in 14 countries.

#### ***4.1 Variables and indicators***

For our purposes of analysis, we need to define a measure of well-being/poverty (outcome variable), and a set of indicators reflecting the different ways social protection services are delivered in each country. Further, we need to define quantitative indicators able to measure the country degree of decentralization with respect to the provision of social protection. Table 1 shows a synthetic description of variables and indicators.

Available harmonized data sources (see section 3) allow us to consider both individual (EUSILC data) and country variables (ESPROSS, NAs, and SOCX). Given lacks of data for some countries, we decide to focus on a selection of countries, namely Austria (AT), Belgium (BE), Germany (DE), Denmark (DK), Spain (ES), Finland (FI), France (FR), Ireland (IE), Italy (IT), Netherlands (NL), Norway (NO), Portugal (PT), Sweden (SE), and United Kingdom (UK). We end with a cross-section data set, including 127324 households for the year 2013.

Based on EUSILC data (Eurostat 2016), for each sampled household we define the dichotomous variable POVERTY, which is equal to “1” if the household’s equalized income is under the poverty threshold (60% of median disposable income), “1” if it is above. POVERTY is our primary outcome variable of interest. Furthermore, we select/compute the following variables and indicators to control for the household’s social and demographic characteristics:

Size of household, Family type, Number of members with tertiary education, Number of female members, Numbers of members with a job, Number of unemployed members, Number old-age members aged, Number of kids, Amount of benefits received by the household as a percentage of the average disposable income earned by households living in the same country.

To characterize different social protection systems across countries we propose the following set of indicators (coming from NAs, ESPROSS, and SOXC):

Ratio between “Social transfers in kind” and “Social benefits other than social transfers in kind” (KIND\_CASH); Share of means-tested benefits over total benefits (MEANS\_TOT); Share of private social benefits over total social benefits (PRIVATE\_TOT), Social expenditure per inhabitant as a percentage of GDP (SOC\_EXP).

Table 1. Variables and indicators description.

Name	Description	Categories	Data source
POVERTY	Household equalized above or under the poverty threshold (60% of median disposable income)	0=above poverty threshold	EUSILC
		1=under poverty threshold	
HSIZE	Number of members of household	Num	EUSILC
FAMTYPE	Type of household	1= one person	EUSILC
		2= without dependent children	EUSILC
		3= single parent with dependent children	EUSILC
		4= with dependent children	EUSILC
		5= Others	EUSILC
NDEGREE	Number of members with tertiary education	Numeric	EUSILC
NFEM	Number of female members	Numeric	EUSILC
NWORK	Numbers of members with a job	Numeric	EUSILC
NUNEMP	Number of unemployed members	Numeric	EUSILC
NOLD	Number of members aged $\geq 75$	Numeric	EUSILC
NKIDS	Number of members aged $<16$	Numeric	EUSILC
BENEFITS	Benefits received by the household over the country average disposable income. Benefits include children, housing, social exclusion and education related allowances as well as unemployment, sickness and disability benefits. Old age and survivors' benefits are not included	Numeric	EUSILC
DECENTR	Decentralization index resulting from Lijphart (1999) factor analysis on the constitutional features and electoral outcomes of 36 different democracies	5-point scale (5 for the most purely federal countries)	Sellers and Lindstrom 2007
BENEFITS_NUTS2	Variation coefficient of Social benefits other than social transfers in kind over disposable income of regions (NUTS 2)- 2011.	Numeric	NAs
KIND_CASH	Ratio of "Social transfers in kind" and "Social benefits other than social transfers in kind"	Numeric	NAs
MEANS_TOT	Share of means-tested benefits over total benefits	Numeric	ESPROSS
PRIVATE_TOT	Share of private social benefits over total social benefits, 2011	Numeric	SOXC
SOC_EXP	Social expenditure per inhabitant in PPS as a percentage of GDP in PPS- 2013	Numeric	ESPROSS
ACTUAL_IND_EXP	Actual individual expenditure of households in PPS as a percentage of GDP in PPS. 2013	Numeric	NAs

In line with the conclusions stemming from the juridical comparative analysis (see Section 2), we use two different indicators to measure the decentralization level of a country. The first indicator (DECENTR) mainly takes into account the country form of State, giving the highest value of decentralization to the most purely federal countries. It is the decentralization index derived by Lijphart (1999) as a result of a factor analysis based on a number of features of democracy. This indicator still represents one of the most influential typology of modern democracies, although this classification has been criticized by many scholars on conceptual, empirical and normative grounds (Sellers and Lindstrom 2007). The second indicator (BENEFITS\_NUTS2) aims at measuring the effective implementation of constitutional provisions at the local level, accounting for the heterogeneity of social protection within countries. For each country, the indicator is computed as the variation coefficient among regions (NUTS 2, Eurostat, 2013b) of “Social benefits other than social transfers in kind” over households’ disposable income.

Finally, we compute Actual individual expenditure of households as a percentage of GDP to control for the material well-being level of each country.

Table 2 contains the country variables values for each country in 2013. Greater values of territorial disparity in the supply of social protection (see the variation coefficient of social benefits over disposable income of regions in column 2 of the Table 2) not necessarily agrees with higher levels of institutional decentralization as indicated by the Lijphart indicator (column 1). Overall, a puzzling picture emerges from this Table, which suggests further investigations.

Table 2. Country variables values (reference year 2013). Last column: head count ratio, percentage of households under the poverty threshold.

	DECENTR	BENEFITS_NUTS	KIND_CASH	MEANS_TOT	PRIVATE_TOT	SOC_EXP	ACTUAL_I_EXP	HCR
AT	4.50	6.907	0.711	0.083	0.068	0.295	0.703	15.693
BE	3.20	10.141	0.841	0.055	0.065	0.295	0.716	16.415
DE	5.00	15.593	0.802	0.123	0.111	0.296	0.798	16.453
DK	2.00	5.274	0.953	0.360	0.145	0.318	0.736	6.108
ES	2.00	11.702	0.659	0.143	0.019	0.248	0.955	18.000
FI	2.00	8.883	0.980	0.053	0.041	0.309	0.576	12.058
FR	1.30	7.910	0.809	0.110	0.103	0.349	0.792	12.946
IE	1.00	5.075	0.796	0.319	0.079	0.196	0.643	15.807
IT	1.50	9.329	0.550	0.056	0.075	0.294	0.729	17.099
NL	3.00	7.824	0.979	0.133	0.241	0.302	0.561	5.478
NO	2.00	8.847	1.112	0.037	0.090	0.234	0.465	9.915
PT	1.00	7.237	0.600	0.084	0.072	0.272	1.316	18.841
SE	2.00	9.714	1.186	0.027	0.105	0.287	0.492	14.159
UK	1.00	14.024	0.823	0.144	0.215	0.267	0.772	17.361

Data sources: columns 2-7 our computations on EUSILC, ESPROSS, SOCX, and NAs data. Column1, indicator from Lijphart (1991)

## 4.2 Methodology and results

The objective of our analysis is to contribute to a better understanding of the potential effects of decentralization on head count ratio and inequality across countries. To this end, we model individual binary outcomes (living or not under the poverty line) as a function of both family-level and country-level characteristics. We aim to investigate how different policy environments and institutions affect outcomes, thus contributing to the policy debate about the role played by decentralization.

There is natural hierarchy within the data: there are observations at the family level nested within the country level. This multilevel structure affects model specification and estimation.

Possible strategies in quantitative analyses of multi-country datasets include the following: pooling the data for all countries (and using cluster-robust standard errors), using separate models for each country, country fixed effects models, or multilevel models (also known as random effects models or hierarchical models). Multilevel models appears to be the natural choice when one is interested in the country-level predictors or the variance component structure, investigating to what extent unobserved country factors affect population units (families).

When the dependent variable is dichotomous (as in our case), or otherwise non-normally distributed, it requires one to estimate a generalized linear multilevel model. Consider an individual-level outcome  $y_{ij}$  taking on value 1 with conditional probability  $p_{ij}$ . Then the logit (or generalized linear) multilevel model is the following:

$$\ln\left[\frac{p_{ij}}{1-p_{ij}}\right] = X_{ij}'\gamma + Z_{ij}'u_j$$

for individual-level unit  $i$  nested within country-level unit  $j$ . At individual level, we assume  $y_{ij}$  conditionally distributed as Bernoulli, while the random effects vector  $u_j$  is distributed as  $N(0, \sigma_u^2)$  across the country-units.  $\gamma$  contains the so-called fixed effects for individual-level units in the same group; while  $u_j$  can be interpreted as the (random) effect of being in group  $j$  on the log-odds that  $y=1$ .  $\sigma_u^2$  is the country-level (residual) variance, or the between-group variance in the log-odds that  $y=1$  after accounting for fixed effects.  $X$  and  $Z$  are the corresponding design matrices.

Our dataset contains thousands of observation at the individual level, but the number of countries is relatively small. Recently, Bryan and Jenkins (2015) argued that the small number of countries in most multi-country datasets severely constrains the ability of multilevel regression models (also known as hierarchical or random effects models) to provide robust conclusions about the effects of country-level characteristics on outcomes. Austin (2010) compared the performance of different statistical software procedures for estimating multilevel models when the number of clusters is low, focusing the attention on multilevel logistic regression models. Based on a simulation study, he suggests that, depending on the software procedure used, the bivariate logistic regression models that we considered can be reliably fitted

when the number of clusters is small (10-15), provided that there is a sufficient number of subjects per cluster. Further, it is worth to note that Bayesian methods offer a potential way to address the small numbers issues (see Gelman and Hill, 2007).

Based on this literature, we consider both traditional logistic regression, estimated on the pooled dataset, and multilevel (random intercept) logistic regression, allowing for the variations due to hierarchy structure in the data. In the first case, because of the classical assumptions of independence of the observations conditional on the explanatory variables and uncorrelated residual errors, we compute cluster robust standard errors to make results more reliable.

We conducted the analysis<sup>1</sup> in two stage. In the first stage, only household-level independent variables were included, with country random intercept for the multilevel model. Table 3 show results.

Table 3. Logit model and multilevel logit model (only household fixed effects).

	Classical logistic model					Multilevel model		
	Estimate	Std. Error		Cluster-adj. Std. Error		Estimate	Std. Error	
(Intercept)	-1.078	0.022	***	0.126	***	-1.144	0.091	***
HSIZE	0.278	0.019	***	0.045	***	0.288	0.020	***
NDEGREE	-0.670	0.017	***	0.062	***	-0.669	0.017	***
TYPE2	-1.123	0.029	***	0.127	***	-1.130	0.029	***
TYPE3	0.005	0.042		0.122		-0.010	0.042	
TYPE4	-0.643	0.049	***	0.159	***	-0.636	0.049	***
TYPE5	-0.701	0.261	**	0.197	***	-0.697	0.253	**
NFEM	0.062	0.016	***	0.037	.	0.063	0.016	***
NOLD	-0.332	0.020	***	0.059	***	-0.339	0.020	***
NKIDS	-0.009	0.018		0.034		-0.014	0.019	
NWORK	-0.902	0.016	***	0.061	***	-0.906	0.016	***
NUNEMP	0.785	0.019	***	0.068	***	0.774	0.020	***
BENEFITS	-0.477	0.062	***	0.379		-0.512	0.065	***
Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1								
Classical logistic model				Multilevel model				
				Random effects:				
				Standard Deviation		0.336		
Null Deviance	104917	Df	127323	Loglik		-44183.5		
Residual Deviance	89538	Df	127311	Residual Deviance		88367.1	df	127310
AIC	89384			AIC		88395.1		

<sup>1</sup> We used the R software -R Core Team (2015). R: A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna, Austria. URL <http://www.R-project.org/>

The utility of a particular term in the fixed-effects part of the model can be roughly assessed by examining the estimates of the coefficients associated with it and their standard errors, taking into account that slopes or differences in levels are with respect to the logit or log-odds function. The number of kids (NKIDS variable seems not to effect the probability of being a poor family (POVERTY=1). Moreover, the probability of being a poor household is not significantly different in case of Single parent with dependent children (TYPE3) or One-person (TYPE1) families. Looking at the sign of coefficients, we notice that the probability of being a poor household increases (positive sign of coefficients) with the number of members (HSIZE), the number of female members (NFEM), and the number of unemployed members (UNEMP). At the opposite (negative sign of coefficients) the probability of being a poor family decreases with the number of members with tertiary education (NDEGREE), the number of members aged 75 or more (NOLD), and the number of members with a job (NWORK). Finally, all household typologies (with the exclusion of Single parent with dependent children households) have a lower probability to be poor with respect to the One-person family.

We can draw consistent evidence from the two models, with the relevant exception of the benefits received by the household (BENEFITS), which appears not significantly affecting the probability of living under the poverty line, when considering cluster-robust standard errors in the standard logistic model. Its coefficient is, instead, negative and highly significant in the multilevel logistic model, suggesting a role of benefits in reducing the probability to be under the poverty line.

In the second stage, we estimated a classical logistic regression including household-level and country-level variables (results in Table 4) and a multilevel logit model with random intercept and both household-level and country-level fixed effects (results in Table 5).

To overcome inferential shortcomings due to the low number of countries, the last model has been estimated exploiting Bayesian MCMC methods. Specifically we used “brms”, an R Package for Bayesian multilevel models (Burkner, 2016). An important advantage of Bayesian MCMC methods is that  $\mu$  is a model parameter, in the same manner as  $\gamma$ , so that uncertainty in its estimates can be naturally evaluated, as compared to maximum likelihood approaches, which typically only allow to obtain point estimates of  $\mu$ . Credibility intervals at 95% level are computed for all parameters.

Table 4. Logistic regression model (both family and country independent variables).

	Estimate	Odds Ratio	Std. Error		Cluster-adj. Std. Error	
(Intercept)	-0.997	0.369	0.134	***	0.581	.
HSIZE	0.275	1.317	0.020	***	0.035	***
NDEGREE	-0.672	0.511	0.017	***	0.063	***
TYPE2	-1.128	0.324	0.029	***	0.106	***
TYPE3	-0.003	0.997	0.042		0.101	
TYPE4	-0.650	0.522	0.050	***	0.179	***
TYPE5	-0.642	0.526	0.261	*	0.316	*
NFEM	0.061	1.063	0.016	***	0.036	.
NOLD	-0.343	0.709	0.020	***	0.055	***
NKIDS	0.001	1.001	0.019		0.031	
NWORK	-0.902	0.406	0.016	***	0.060	***
NUNEMP	0.750	2.117	0.020	***	0.087	***
BENEFITS	-0.395	0.674	0.064	***	0.430	
DECENTR	-0.018	0.982	0.008	*	0.053	
BENEFITS_NUTS2	0.064	1.066	0.004	***	0.026	*
KIND_CASH	-0.046	0.955	0.067		0.176	
MEANS_TOT	-1.130	0.323	0.149	***	0.621	.
PRIVATE_TOT	-0.946	0.388	0.177	***	1.594	
ACTUAL_IND_EXP_C	0.128	1.136	0.062	*	0.156	
SOC_EXP	-1.771	0.170	0.311	***	1.345	
Null Deviance	104917	df	127323			
Residual Deviance	88691	df	127304			
AIC	88731					

There is no significant difference between the standard logistic estimate and the multilevel logistic estimate, as far as country-level variables are concerned. The variation coefficient of social benefits over disposable income of regions (BENEFITS\_NUT2), with positive sign, is the only country-level almost significant variable at 0.05% level (even if the lower bound of the credibility interval is zero). With the other variables held constant, the probability of being poor seems to increase when living in countries with higher territorial inequalities in the allocation of social protection benefits. Inequality within countries, with its possible link to the real level of decentralization, appears to be a key factor, which deserves further analysis.

Table 5. Multilevel logistic regression model (both family and country-level fixed effects). 95% credibility intervals are reported (lower and upper bound).

Fixed Effects:	Estimate	Est.Error	l-95% CI	u-95% CI
Intercept	0.47	0.13	0.22	0.73
HSIZE	0.06	0.01	0.05	0.08
NDEGREE	-0.10	0.01	-0.11	-0.09
TYPE2	-0.27	0.01	-0.29	-0.24
TYPE3	0.00	0.02	-0.05	0.04
TYPE4	-0.22	0.02	-0.26	-0.18
TYPE5	-0.21	0.11	-0.43	0.01
NFEM	0.02	0.01	0.00	0.03
NOLD	-0.07	0.01	-0.09	-0.05
NKIDS	0.00	0.01	-0.02	0.02
NWORK	-0.16	0.01	-0.17	-0.14
NUNEMP	0.33	0.01	0.30	0.35
BENEFITS	-0.05	0.03	-0.10	0.01
DECENTR	0.00	0.01	-0.03	0.02
BENEFITS_NUTS2	0.01	0.01	0.00	0.03
MEANS_TOT	-0.11	0.18	-0.46	0.25
PRIVATE_TOT	-0.25	0.26	-0.77	0.27
SOC_EXP	-0.29	0.39	-1.07	0.47
Group-Level Effects:				
Standard Deviation	0.05	0.02	0.03	0.09

## 6. Final considerations

This work dealt with the relationship between welfare state typologies - with different degree of decentralization - and the well-being of citizens in European countries. According to our results, decentralization (measured in terms of territorial inequalities in the provision of social protection) seems not to favor citizens' well-being (having an equalized disposable income above the poverty threshold).

Despite the number of papers dealing with comparative analysis of welfare states, our work contributes to the existing literature at least for three reasons. First, the interdisciplinary perspective, which tries to reconcile the complex juridical context with the empirical evidence; second, the in-depth comparative analysis of available social protection official statistics; third, the empirical results pointing out the issue of within-country heterogeneity in social protection provision

As a direction for future work, we plan to extend the analysis as follows: consider multiple outcomes covering multiple well-being dimensions; use panel data to investigate the dynamic of welfare states evolution, with specific focus on the effect of the recent economic crisis.

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