

COMPARATIVE WELFARE STATE ANALYSIS WITH SURVEY-BASED BENEFIT RECIPIENCY DATA
The 'dependent variable problem' revisited introducing a new perspective on welfare state clustering

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1. Introduction

In cross-national and longitudinal comparative welfare state analysis there is an important debate about the question which types of indicator can be (best) used for measuring differences between and developments of welfare states. Until now, this so-called 'dependent variable problem' concentrates most specifically on the relative validity and quality of two types of indicator: social rights and social expenditure. Social rights based measures compare the formal legislations in and between countries that establish and regulate citizens' access and entitlements to social provisions (e.g. Esping-Andersen, 1990; Scruggs & Allan, 2006). While expenditure based measures compare how much states in any year spend on social provision (in total and by types of benefits and services) (e.g. Castles, 2002). In a recent volume, which discusses the various aspects of the 'dependent variable problem' in detail, both indicators are paid prime attention (Clasen & Siegel, 2007).

However, there is recognition in the literature that a third type of indicator might be helpful and complement the two conventional indicators, which regards the number of citizens that receive (specific types of) benefits. In Peter Flora's early comparative study of twelve European welfare states over the period 1950-1980 it was argued that information on 'welfare clienteles' - their (relative) numbers and the (relative) amount of benefit they receive - is an essential and complementary part of the picture of the character and magnitude of welfare state provisions (Flora, 1986, p. XXXI). The study's analyses of administration based 'case load' numbers of recipients of a range of social security benefits (including social assistance, unemployment benefit, sick pay, disability benefit and pensions) showed as general trends that welfare state protection had expanded steadily over the period in all countries (increasing size of the various welfare clienteles, being independent of changes in social needs, as e.g. unemployment rates, average individual health, average population age, etc.), while some particular differences in levels of welfare protection between groups of countries became visible (largest welfare clienteles in the Scandinavian countries, followed by West-European countries, and smallest clienteles in the Southern European countries). Clearly, 'case load' figures were able to detect the overall trends in and differences between welfare states that are known to characterize this 'Golden Age' period of Western-European welfare state development (Esping-Andersen, 1996; Gough, 1979). However, since then, very few comparative welfare state studies picked up welfare clienteles or benefit reciprocity numbers as indicators, most probably because such data is very hard to get for a larger number of countries and years.¹ Notable exceptions are Arents et al. (2002), Immervoll et al. (2004) and OECD (2003a). In this series of related studies administrative caseload data are used and analysed for tracking and comparing trends in social security protection, but they only touch briefly upon the relative value of such data compared to social rights and social expenditure data. A subsequent, most recent study, comparing

¹ As it happens, the common use of social rights and social expenditure data in welfare state comparison may indeed be related to the fact that such data are broadly available, since they are produced on a yearly basis by (international) institutions. Social expenditure data is provided by the OECD and EUROSTAT, and published via the publicly accessible online databases SOCX (OECD) and ESSPROS (EUROSTAT). Regularly updated sources for social rights data are for instance: MISSOC (the Mutual Information System on Social Protection in the member states of the European Union), SSPTW (the reports on Social Security Programs Throughout the World, provided by the U.S. Social Security Administration), SCIP (The Social Citizenship Indicator Project of the Swedish Institute for Social Research and Stockholm University).

eleven Western European welfare states on the basis of caseload data over the period 1980-2007, puts its empirical analyses directly in the context of such an evaluation (De Deken & Clasen, 2011). It focuses especially on the relative value of caseload data for analysing welfare state change over time compared to social expenditure data. The study concludes that caseloads, although having some particular methodological problems, are not necessarily an inferior indicator of welfare state change. Firstly, because expenditure based data are not flawless either, but secondly, and more importantly, because both types of indicator may tap into different aspects and manifestations of welfare reforms. It is concluded that both are 'distinctive indicators of welfare state change' (p. 316), telling their own story and therefore may be appropriate in their own right for different types of research questions. Finally, De Deken and Clasen (2011) suggest that it is worthwhile to develop and use caseload data in future comparative welfare studies.

This paper starts from this suggestion and aims to add to the field in various ways. A first aim is to extend the comparison of the relative value and meaning of indicators to all three: social rights, social expenditure and benefit reciprocity. We will present a schema which links the three indicators conceptually, and then discuss the typical character and (dis)advantages of each. A second aim is to broaden the discussion on the benefit reciprocity indicator by elaborating upon the distinction between two substantially different types: administrative caseload figures, which up till now have had most attention, and survey-based reciprocity data. Since the latter are nearly neglected in comparative welfare state analysis thus far, we will especially discuss their value and include an empirical analysis in which they are applied as measures for comparing welfare regime types. The substantive research question in this section will be whether and to what degree benefit reciprocity statistics leads to conclusions about welfare state clustering fitting to or deviating from Esping-Andersen's well-known distinction between the qualitatively different types of universal, conservative and liberal welfare states (Esping-Andersen, 1990).

We will see that all indicators have their own appealing features, as well as problems. This, plus the fact that each of them measures different aspects of the welfare state, makes that it is not an issue which of them generally would be best or most advisable. In this, we fully agree with De Deken and Clasen (2011). One should be aware, though, that using one or the other can have strong implications for the type of conclusions one can or will draw from a comparative analysis of welfare state differences and similarities. For instance, it has been noted that expenditure based comparative analyses of recent developments of Western welfare states tend to show less, and less downward change, than social rights based analyses (Siegel, 2007).

In the remainder we will first position benefit reciprocity measures against social rights and expenditure measures, and then present and present and discuss the empirical study on welfare state clustering using benefit reciprocity data from the European Union Statistics on Income and Living Conditions (EU SILC). We finalize with conclusions and discussion

2. Three indicators for welfare state comparison

2.1 Social rights

In the social rights approach to measuring and comparing welfare state differences and similarities formal legislation that regulates citizens eligibility for and entitlements to social benefits is the basic source of data. The approach allows analyses to a level of detail only limited by the detailedness of the legal texts one is using, while combinations and aggregations of details allow to analyse differences and similarities between components and types of benefits and even between complete welfare systems. The flexibility of the approach is reflected in the variety of use that is made of it. A few examples will make this clear. Social rights data is used to compare in detail specific aspects of benefit schemes, like e.g. work record requirements regulating access to unemployment benefits

schemes (Clasen, Van Oorschot, & Kvist, 2001), they are used to create indices, i.e. composite measures, to capture differences between welfare programs or welfare systems with a single measure, as e.g. a replacement rate (OECD, 2004), a benefit generosity index (Scruggs & Allan, 2006) or a de-commodification index (Esping-Andersen, 1990), they are used to create typologies of welfare provision in specific fields, as e.g. provisions for families (Den Dulk, Van Doorne-Huiskes, & Schippers, 1999), they are used to rank social security benefits and systems (e.g. Dixon, 1999; Kaim-Caudle, 1973), to compare benefit entitlements of typical cases, like social assistance for various types of families (Nelson, 2012), or unemployment benefits for types of workers (OECD, 2003a, 2004), etc. In addition to detailedness and flexibility, a noteworthy specific advantage of the approach is that, compared to the alternatives, it gives information on social provision that is closest to what policy makers have in mind and prefer when designing welfare legislation, and as such gives most direct information on the role and intentions of the state in providing individual life chances and resources (Clasen & Clegg, 2007; Scruggs, 2007)². For these reasons it is claimed that the social rights approach is best equipped for measuring differences in the 'quality' of social protection (Clasen & Clegg, 2007). This may be the case, but if one is interested in quality of social protection in terms of the actual social impacts of social rights legislation in specific populations, that is in how rights play out in reality and produce (or fail to produce) beneficial outcomes for people with social needs, the approach basically delivers a paper reality only. That is, social rights analyses are about policy outputs, not about social outcomes. For cross-national comparison, other problematic aspects are that the data, i.e. legal texts, is not always available in languages commanded by the researcher, and that it is a cumbersome and time consuming task to systematically update the detailed information.³ This is why many social rights based comparative studies cover a smaller selection of countries and are confined to a specific year or a limited number of years. A particular problem resides in any combination or aggregation of social rights details into indices or overall rankings, which is that the choices for including and weighing specific scheme elements in the combined measure are mostly rather arbitrary and depend upon the personal judgments and preferences of the individual researcher. For instance, how to weigh up longer benefit duration in one country to a shorter work record requirement in another country for the same type of benefit? This arbitrariness questions the validity of outcomes of any study that uses composite measures (Kaim-Caudle, 1973). This becomes particularly manifest when studies are repeated by colleague researchers, as for instance is the case with Esping-Andersen's de-commodification index, the measurement and analysis of which was repeated by Scruggs and Allen who came to very different index scores for benefits and to different groupings of countries in welfare regime types, with a critical note on whether country grouping is at all meaningful given the low correlations between the index scores of the various welfare benefits of countries (Scruggs & Allan, 2006). The arbitrariness inherent to composite measures also detracts from the claim that social rights based measures would be best to indicate differences in the quality of social provision for citizens. For any single benefit component, like for instance benefit level, one can say that a specific trait reflects better quality than another, like that a higher benefit level offers better quality income provision than a lower benefit level, but how

² Although one can be quite critical about how close one could come to knowing intentions and preferences of policy makers through social rights analysis. Kaim-Caudle (1973) notes in this respect that the political process leading up to the establishment and reform of benefit schemes may be very complex, and 'cloaked in secrecy' (p. 290), but other critical considerations are possible. For instance, if 'path dependency' and 'institutional inertia' play a role then social rights reflect past rather than present intentions of policymakers, and the actual design and implementation of rights may be different from what was initially intended.

³ There are various initiatives for the cross-national and longitudinal gathering, archiving and manipulation of social rights data, each with specific selections of countries and years, and with different levels of detailedness. Initiatives with continuous updating are for instance: MISSOC (the Mutual Information System on Social Protection in the member states of the European Union), SSPTW (the reports on Social Security Programs Throughout the World, provided by the U.S. Social Security Administration), SCIP (The Social Citizenship Indicator Project of the Swedish Institute for Social Research and Stockholm University).

to weigh up the quality of one benefit component to that of another, like weighing up a higher level of one benefit to the longer duration of another?⁴

2.2 Social expenditure

While the social rights approach focuses on policy outputs, the social expenditure approach to measuring and comparing welfare state differences and similarities focuses on the cost outcomes of welfare policies (Green-Pedersen, 2007). That is, it takes statistical data on countries' annual spending on social programs as its data source. For many years, these data are systematically produced for selections of countries by the OECD and EUROSTAT, and published via the publicly accessible online databases SOCX (OECD) and ESSPROS (EUROSTAT). Their availability and systematic updating for a larger number of countries may account for the fact that social expenditure figures are rather popular in comparative studies, and the approach has some convinced advocates (see e.g. Castles, 2002, 2009). Social expenditure as a proxy for welfare stateness or welfare effort is also particularly popular in quantitative studies on the driving forces of the welfare state (e.g. Kittel & Obinger, 2003; Wilensky, 1975), and in studies on welfare state effects on social behavior and opinions of individuals (e.g. Blekesaune, 2007; Lepianka, Van Oorschot, & Gelissen, 2010), since the measure itself is at ratio-level and can be included in linear regression models.

However, the approach is subjected to a range of critiques. Esping-Andersen seems to be most radical in denouncing the value of expenditure figures for comparative welfare state analysis, since in his view expenditures "*are epiphenomenal to the [...] substance of welfare states*" (Esping-Andersen, 1990, p. 19) and is it totally wrong to assume that more spending indicates better welfare provision. It would be if spending figures would only be affected by the accessibility and generosity of welfare entitlements of a country, but in reality they are also affected by the size of the target populations of benefits. For instance, *ceteris paribus*, spending on unemployment benefit is higher in countries with higher unemployment levels, or, again *ceteris paribus*, spending on pensions is higher in countries with older populations. For cross-national comparison of the 'quality' of social protection systems it is therefore necessary to 'needs-balance' (lit ref.) or 'needs-adjust' (Siegel, 2007) expenditure figures, that is, to correct for differences in the size of target populations (Kaim-Caudle, 1973; Scruggs, 2007). A typical example would be if one would use the ratio of unemployment benefit spending and the number of unemployed persons as a measure of the quality of unemployment income protection. To improve cross-national comparison it is also custom to correct spending figures for differences in national wealth, by expressing them as percentages of gross domestic product (GDP). Not the absolute amounts spend are of interest, but the relative shares of social spending in a country's overall financial resources. This improvement goes at the cost, however, of introducing a third factor affecting the spending figures, namely the economic performance of a country, which may fluctuate considerably between countries and over a period of some years. This means that a lower or decreasing expenditure figure may not so much reflect a lesser or diminishing social protection, but an improving economy instead, and vice versa (Siegel, 2007). Another type of critique regards the quality of the data. The expenditure figures produced by OECD and EUROSTAT are lumped together in a few categories, like e.g. 'family cash benefits' and 'unemployment benefits', while there may be large country differences in the type of benefits that are actually included in the categories. The first makes that expenditure figures offer much less detail for studying differences in welfare provision than social rights data (expenditure data are at best a kind of summary measure of various eligibility and entitlement aspects of benefit schemes (Green-Pedersen, 2007)), while the second detracts from the cross-national comparability of expenditure figures. Where in earlier

⁴ When social rights based data is used in producing comparative information on how typical cases score on one or another index for benefit generosity, additional arbitrariness is introduced through the selection of the characteristics of persons that are used for the type case construction. Typical cases (as e.g. the working single parent, or the younger unemployed, etc) may be more common in some countries than in others (Gallie & Paugam, 2000).

studies aggregated or total social spending (the sum of categories) was taken as a measure of welfare state effort, it is now commonly acknowledged that disaggregated figures are to be preferred, since it is shown that between categories spending levels are relatively independent (Castles, 2009). In other words, total social spending may be a rather meaningless indicator of welfare state difference.⁵ A second problem of the available data is that there are considerable differences between the figures of OECD and of EUROSTAT for the same countries and years⁶ (De Deken & Kittel, 2007), which questions of course their validity and reliability, while, as yet, the question of which of both are best in this respect remains unanswered. Then, it is also recognized that gross GDP-corrected social spending figures for many countries are quite different from their net counterparts, i.e. after accounting for the impact of the tax system and private social expenditure. Net spending figures are more similar between countries, while EU countries take in different relative positions on rankings based on gross or net figures: on the basis of gross spending figures Denmark and Sweden are the biggest spenders, while in terms of net spending France, Germany and Sweden take the lead (Adema & Ladaïque, 2005). Since net spending reflects more directly the resources that are actually available for citizens (i.e. after taxation and with private provision included), they are increasingly preferred (De Deken & Kittel, 2007). Finally, a problematic aspect of the data is that for most countries and years they contain some missing values, especially at the level of categories. All in all, Siegel's analysis of the pro's and con's of social expenditure data as a measure of welfare state difference leads him to conclude that they should not be "*misread as proxies for welfare generosity*", but that cautious use can contribute to our understanding of welfare state difference, especially in the context of a discourse that puts emphasis on the costs of social provision, rather than on its achievements (Siegel, 2007). While Bonoli qualifies social expenditure as "*a very crude and sometimes inadequate indicator to reflect the effort made by a country in a given policy field. However, it is a useful and convenient way to provide a first approximation*" (Bonoli, 2007, pp. 36-37). In reaction to the critiques on the expenditure approach its most fervent advocate recently argued that, although (dis-aggregated) spending figures may not inform us directly on quantitative and qualitative differences in welfare provision between countries, they do correlate statistically with differences in welfare outcomes in terms of poverty and inequality and they do inform us at least on national differences in spending priorities (Castles, 2009).

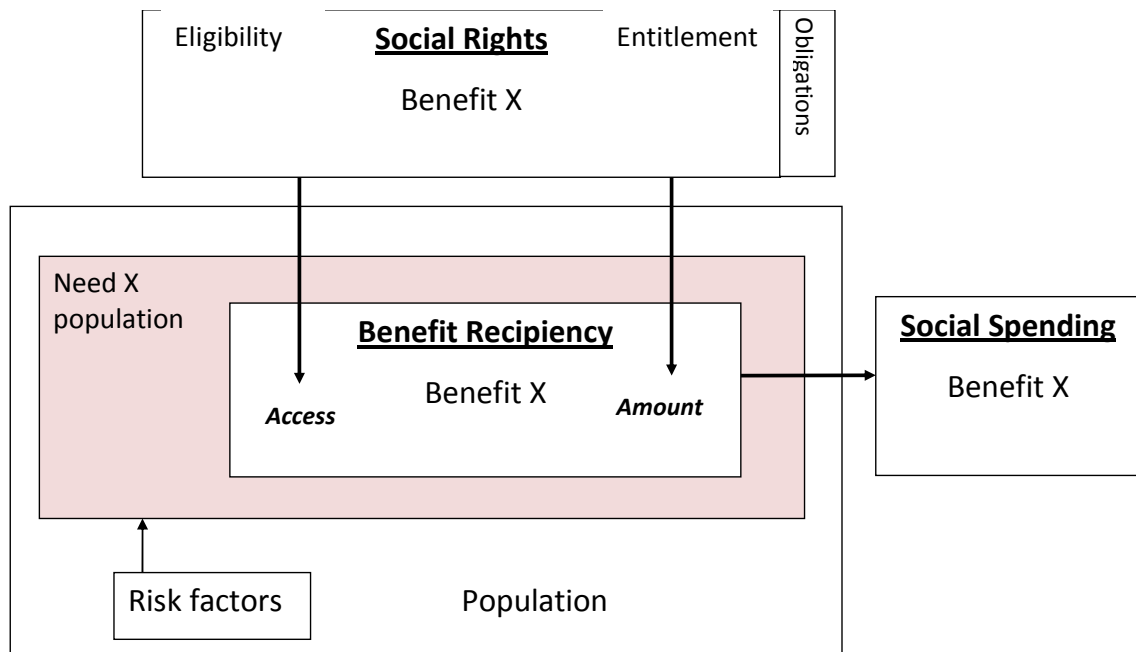
2.3 Benefit recipiency

Benefit recipiency data form an under-used source for cross-national and longitudinal comparison of the degree and quality of welfare provision offered by welfare states. We will elaborate on this here, but first like to draw attention to schema 1, where benefit recipiency is positioned against social rights and social expenditure, showing the interrelations between the three types of indicators and their relations to wider society.

Schema 1: The three indicators of welfare provision and their interrelations

⁵ Note that Scruggs and Allan (2006) use a similar argument of low inter-correlations to doubt the meaningfulness of adding up de-commodification scores of a range of benefits to arrive at a single score for a national social security system.

⁶ Differences are due to different delineations between what is public and private spending, as well as to inclusion or exclusion of administration costs (De Deken & Kittel, 2007).



Schema 1 directs attention to several important issues. Firstly, the ‘paper reality’ of social rights regarding a benefit X (e.g. an unemployment benefit) turns into a social reality only when rights are actually applied in a country’s population. It is there and then that their social impact emerges, which impact is reflected most directly in two central but different components of benefit reciprocity, which are directly related to the difference in the social rights components of eligibility and entitlement: 1) the relative number of citizens who have access to and actually receive the benefit, and 2) the amount of benefit the receivers actually obtain. Secondly, social spending on benefit X results from an aggregation of benefit reciprocity, that is, it equals the multiplication of the number of benefits paid out and their average amount⁷. Analytically, social spending figures are less informative on the social impact of social rights compared to benefit reciprocity figures because the distinction between the two components of numbers and amounts is lost. Thirdly, what counts in cross-national and longitudinal analysis of the social quality or the social impact of social rights are not just reciprocity numbers as such, but reciprocity rates relative to the size of the need population, which is the part of the population that is actually confronted with the need that benefit X aims to provide for. As expenditure figures, claimant numbers have to be ‘needs-balanced’ or ‘needs-adjusted’.⁸ For

⁷ Administration costs may be added, but this is not crucial for our argument.

⁸ Needs-balancing is a problem in itself, because how to generally define and measure the need population that is relevant for a given benefit, apart from the formal definitions contained by the schemes. In most cases there is much debate on exactly this, as e.g. the question of who are the unemployed, the disabled, needy families, people with health problems, etc.. In the literature there is some practice to take the official unemployment rate as proxy for the size of the need population of unemployed people, and those over 65+ as proxy for the need population of pension benefits (Castles, 2009; Kuitto, 2011). And one might think of taking the group of 16 years old or younger as proxy for the need population of family cash benefits and life expectancy as a proxy for the degree of ill-health in a population (Kangas & Palme, 2007). But, proxies are not the real thing, and may therefore always be debated. As Olson puts it: “In the last instance, it is impossible to give definitions of medical, social and educational needs which are not controversial” (Flora, 1986, p. 41).

Note that Esping-Andersen ‘needs-adjusted’ his social rights based de-commodification scores for benefits by weighing them with the percentage of ‘the relevant population covered’ on grounds of the argument that “...a program may offer luxurious benefits and liberal conditions, but if it addresses only a small clientele, it has obviously limited capacity to de-commodify.” (Esping-Andersen, 1990, p. 47). His study has no information, alas, on how the relevant populations covered were calculated for the risks of unemployment and sickness. The

example, the social quality of an unemployment benefit system in a country is better than that of another country, not if it pays out benefits to more people as such, but if it pays out benefits to more of the citizens who are unemployed.⁹ The schema furthermore reflects that need populations may fluctuate in volume in function of the size of a country's population and the (economic, social and cultural) risk factors that are at play in it. This is included in the schema to emphasize that reciprocity rates are affected by social rights legislation on the one hand, and characteristics of national societies on the other. Finally, what the schema does not show directly, but what is important to note, is that also benefit amounts as such are not the real issue for cross-national and longitudinal comparison, but amounts relative to some standard. Standards may differ, depending on what aspects one is particularly interested in. If interested in social rights impacts on personal income, one can take previous (i.e. before the risk occurred and the benefit was received) total income as a standard, which would result in the well-known replacement rate; If interested in the relative value of the benefit for people's present standard of living one can take total present income as a standard; If interested in how well recipients of benefits do compared to the overall population, one can take median population income as a standard; If interested in the poverty reduction impact of social rights one can take poverty thresholds as a standard, etc.

With reference to schema 1 our main argument is that, although being an underdeveloped measure as yet, information on benefit reciprocity rates and amounts is a welcome addition to the much more frequently used measures of social rights and social expenditures. Compared to social rights, reciprocity information gives a more direct picture of the actual social impact and social significance of rights, that is, they show how the paper reality of rights, which may be quite similar between countries, translates into social realities, which may be quite different between countries with different economic circumstances and social compositions. Compared to social expenditures, reciprocity data offer more detailed information by distinguishing benefit access from benefit amount, which are two separate and crucial aspects of the protection quality of benefit schemes. And not the least important, reciprocity data may point out gaps in benefit coverage, i.e. whether there are sections among the risk population that are not covered by a benefit scheme, they allow to assess over-consumption of benefits (where benefits are received by people who are formally not entitled to it), and they allow for analysis of under-consumption or non-take-up (where benefits are not received by people who would be entitled). This kind of information, which is critical when the focus is on the quality of social protection, is not contained by social rights based and expenditure based data.

In addition to this, there are several other specific features of reciprocity data which make them interesting for further exploration. Of course, they also have their problematic aspects. In the remainder of this section we will elaborate on this further, with a distinction between the two different sources of benefit reciprocity data: national registers of benefits paid out, and social surveys in which respondents are asked about their benefit reciprocity.

2.3.1 Register based reciprocity data

Benefit administration institutions register all benefits they pay out, implying that their registers are a direct and most reliable source of information on benefit numbers and amounts. The fact of their

relevant population covered for old age pension was taken as the population of 65+, which seems fair enough, but raises the question whether one should exclude those richer pensioners who are not in need at all.

⁹ Note that we do not refer to the proportion of citizens or workers who are covered by schemes, which 'coverage rates' are also sometimes used as indicators of qualitative differences between social provisions (Flora, 1986; Pfeiffer, 2012; Scruggs & Allan, 2006), but to the proportion of recipients among those who are actually confronted with social risks. Coverage rates indicate which part of the population *could* qualify for a benefit if the risk *would* occur, while our reciprocity rates indicate which part of the group to whom the risk *actually* occurred *in effect* qualifies for the benefit. But there is some discussion on the terminology: Immervoll et al. (2004) choose to define 'coverage rate' as we do define reciprocity rate.

existence and their inherent quality would suggest that they are a welcome data source for analysis and comparison of the social impact of social rights across countries and over time. However, we share with De Deken and Clasen the surprise *'that comprehensive data on the development of the number of benefit claimants (or 'caseloads' in administrative parlance) of various transfer programmes are not systematically collected, or published, at national level'* (De Deken & Clasen, 2011, p. 297). We add to this that there is not only a lack of information on claimant numbers, but even more so on benefit amounts, and that, relevant for our perspective here, this seriously hampers comparative analysis. Although surprised at first, De Deken and Clasen quickly point out that the lack of caseload data resides in practical and definitional difficulties of generating comparative data from administrative registers (see also: Kaim-Caudle, 1973). Firstly, within countries the central gathering and harmonisation of data may be hindered by legal and administrative fragmentation between and within benefit schemes, so that different social institutions and partners would be involved at different levels of government (and in different governance sphere: public, semi-public, private), each with their own implementation practices, record-keeping systems, interests and responsibilities. While, secondly, across countries there may be substantial differences in the definition of social risks (e.g. disability vs early retirement) and relevant categories (e.g. what is partial disabled), of the type of provision for specific social risks (e.g. benefit vs tax credit), of administrative practices, etc., which makes it difficult to compare the national accounts of claimant numbers and benefit amounts, even if national data would be harmonised as best as possible (De Deken & Clasen, 2011). They further add as particular problems that welfare reforms may change definitions and practices, so that it is generally difficult to build up un-interrupted time series for a longer period of time. In addition to the mentioned problems, standard technical problems of comparing register data on claimant volumes are the conversion of partial and periodic benefits to full-time benefit-year numbers, to correct for double counting when individuals receive more than one benefit, and to 'individualize' benefits paid out to households (OECD, 2003a).

Notwithstanding these problems, there have been a number of initiatives in the field that gathered longitudinal, cross-national register based benefit caseload data for a number of benefits (mostly unemployment, disability and sickness, old age, and family benefits), but the number of countries involved is relatively small, mainly confined to Western European and/or Western OECD countries.¹⁰ There is a first study in the field covering the period from 1950 to 1980 and including 12 European countries (Flora, 1986), there is a study with caseload data for 9 European countries, Japan and the US for the period 1980-1997 (5 year intervals) (Arents, Cluitmans, & Van der Ende, 2002), which study was partly augmented and revised by the OECD for 16 countries and the period 1980 -1999 (Immervoll et al., 2004; OECD, 2003a), there is OECD data for 2004 issued bilaterally to individual researchers (De Deken & Clasen, 2011; Erlinghagen & Knuth, 2010), and there is a most recent study with data from 1980 to 2007 including eleven Western European countries (De Deken & Clasen, 2011). The overall conclusion that can be drawn from these studies is that, apart from short-term fluctuations of especially unemployment benefit caseloads in response to unemployment rates, the trend in caseloads has been of a steady increase until the early 1980s (Flora, 1986), with a further increase until (mid) 1990 (Immervoll et al., 2004; OECD, 2003a), after which a period of consolidation has set in in most of the Western European countries included in the analyses. The steady increase has resulted mostly from an expansion of the coverage of populations (Flora, 1986; OECD, 2003a), rather than from an increase of 'take-up' rates among people who already qualify for benefits, or from external macroeconomic factors (OECD, 2003a). The retrenchment in social rights witnessed in Western European welfare states since the (mid) 1990s (see e.g. Korpi, 2003) seems to be visible in the caseload statistics produced by De Deken and Clasen (2011), which show a decrease in the percentage of the working age population that receive any of a series of benefits (social assistance,

¹⁰ There are also some cross-national studies with register based reciprocity data for single benefits (for disability benefit see e.g. Marin and Prinz (2003), OECD (2003b), and Prinz (2003).), as there are national studies of developments of benefit caseloads (e.g. McCashin (2004) on Ireland).

work incapacity, early retirement, paid leaves, ALMP, and unemployment) since the mid-1990s for six of the eleven countries included. This would imply that a reversed trend of substantially limiting benefit coverage of (working) populations might have set in.

Finally, although administrations have records of the amounts of benefit they pay out to their clientele, and this information is used by countries and international bodies to produce aggregated social spending figures, we are not aware of any register based cross-national information on benefit amounts at lower aggregation level (e.g. for different social categories), let alone at individual level.

2.3.2 Social survey based reciprocity data

Benefit reciprocity information can be obtained with social surveys in which respondents are asked whether or not they (or other household members) receive specific benefits, and if so, what the amounts are. Several European comparative surveys contain such questions, some with little detail on types of benefits and amounts received (e.g. European Social Survey ESS, European Quality of Life Survey EQLS, European Union Labour Force Survey EU LFS), others with large detail (Luxembourg Income Study LIS, European Community Household Panel ECHP, and European Union Statistics on Income and Living Conditions EU SILC). These data sources have been used very scarcely to analyze benefit reciprocity. We only know of some studies, including: a study of *de facto* replacement rates of unemployment benefits (where levels of benefit income among unemployed are compared to total incomes among fulltime workers) using ECHP 1994 data (Gallie & Paugam, 2000); a study of reciprocity rates of various benefits using EU LFS and LIS data (Immervoll et al., 2004); a study on reciprocity of disability benefits using ECHP 1997 data (OECD, 2003b; Prinz, 2003); and a study on reciprocity of various benefits among non-employed persons using ESS 2004/5 data (Erlinghagen & Knuth, 2010). All the data generated by these studies regard larger or smaller selections of Western European countries (with or without an additional selection of other OECD countries), and all are confined to one single year, which makes it difficult to draw any general conclusions from them. Since all of the surveys mentioned are available to individual researchers, the very limited use of them for analysis of benefit reciprocity is difficult to understand, other than that perhaps the added value of this data for comparative welfare state analysis has not been recognized to full extent, and/or because one is perhaps deterred by data quality issues that are inherent to this type of data source. As for the first, it is among our aims here to explain and empirically explore their added value. As for the second, the above discussion of other indicators and data sources for comparative welfare state analysis may have made clear that each of them has its own type of data problems. And although we do recognize the quality issues inherent to survey based reciprocity data (we discuss them at length below), like others who did use them, we do not feel that these problems are absolute and render any survey based reciprocity analysis meaningless. Being reciprocity data they do tell a complementary story to social rights and expenditure figures, and although we see that survey based reciprocity data is less reliable than register based data (Immervoll et al., 2004), they also have substantial advantages which justify their use.

Firstly, there is ample data availability, a feature of welfare state indicators so strongly valued by Castles in his defense of the utility of social expenditure figures (Castles, 2002). With the repeated cross-national surveys of ECHP and EU SILC researchers have access to a large amount of annual, detailed benefit reciprocity data, which spans a period of 20 years and covers all the countries that were members of the European Union in the years of surveying. The LIS data go even back to 1980, with waves every 5 years, covering a smaller selection of EU countries, but with inclusion of some non-EU countries. Secondly, and this we regard as the main advantage, especially also compared to register based data, the surveys provide detailed information on other characteristics of respondents, like work status, age, gender, family composition, educational level, health status, other than benefit income, etc. which makes it possible to analyze a series of relevant and interesting questions, which have remained mainly unanswered in comparative welfare state analysis thus far

(Immervoll et al., 2004). Such questions regard e.g. the social distribution of benefit reciprocity, which can be analyzed in detail (and multi-variately) by relating benefit use to a series of demographic and socio-economic characteristics of people and the households there are living in.¹¹ Whether such distributions differ between types of welfare states is presently not known, but may be expected since welfare states differ in their appraisal of and reaction to social hierarchy. Very little is known also about the degree of benefit overlap or 'multiple reciprocity' (Immervoll et al., 2004), which regards situations in which individuals or households receive more than one benefit. Here also, interesting differences between welfare states may be expected, since some have more fragmented or diversified social security systems than others. As we already alluded to above, register based reciprocity data is confined to benefit reciprocity, and offers no information on benefit amounts received by individuals. Such data is contained by ECHP, EU SILC and LIS, which means that one can analyze new questions, like what the value of income from specific benefits is relative to people's own previous or present income, or to the income of other groups in society like workers, poor people, all citizens, etc. Between country differences may be expected here too, reflecting differences in the relative generosity of welfare provisions. Furthermore, survey based reciprocity data can reveal gaps in benefit coverage by relating the number of benefit claimants to the size of the relevant risk population (e.g. what proportion of the unemployed do not receive any unemployment related or other type of benefit?), and it gives information on over- and under-consumption of benefits, i.e. on possible misuse and non-take-up. So, as we see it, benefit reciprocity information from social surveys opens up for studying a range of interesting new questions in comparative welfare state analysis.

However, there are limits with this type of data that have to be kept in mind. Each specific survey will pose its own limits related to its particular design, methods and questionnaires, but an important problem inherent to all reciprocity data from surveys is possible over- and underreporting of benefit use and of benefit amounts received (Immervoll et al., 2004; OECD, 2003a). When asked whether one receives a benefit people can falsely report reciprocity or non-reciprocity, due to memory failure, to mis-interpretation of what kind of benefit is referred to, or to a difference between their own definition of their status and the status on grounds of which a benefit was granted (e.g. people who receive a long-term unemployment benefit may regard themselves as disabled for work and report their benefit as a disability benefit instead of an unemployment benefit). There is very little information on the actual degree of over- and underreporting of benefit reciprocity. The best way to find out would be to check people's responses in a survey with their actual administrative record. As far as we know this kind of check has not been done. A second best way to find out is to compare numbers of people who report to receive a benefit with the numbers of registered recipients. There is one cross-national study that in this way did find discrepancies in reciprocity of unemployment benefit, but there was no overall over- or underreporting. Rather, in some countries there seemed to be over-reporting, while in others there seemed to be under-reporting (Immervoll et al., 2004). The study is careful by mentioning that the discrepancies found may not only be due to misreporting, but also for a part to the fact that register based numbers usually reflected end-of-year reciprocity, while in some of the countries reported reciprocity numbers regarded any claim over the full year. The reciprocity numbers from the latter will be larger than from the first, giving a false suggestion of over-reporting. There are also some national studies comparing benefit payouts with income surveys (Australia, Canada, US, Ireland, , Greece, Portugal), which also find part over- and part underreporting, but the main tendency seems to under-reporting (see Annex of OECD, 2003a). A third way to get information on reporting problems is to compare people's answers to benefit reciprocity and their self-reported status within the same survey (see e.g.: Banks, Kapteyn, Smith, & Van Soest, 2004; Immervoll et al., 2004; Prinz, 2003). In these cases it is usually found that

¹¹ Note that this kind of detailed information at individual level is also available from administrative records in Scandinavian countries like Norway and Denmark, where centralized and detailed population registers are accessible for scientific analysis.

substantial proportions of those who receive a specific benefit do not report the related status (e.g. recipients of unemployment benefit who report to be fulltime working or to be non-employed and not looking for work), as well as proportions of people who report to have the status but not receiving the benefit (unemployed who do not have an unemployment benefit). One should be careful with interpreting such findings as mis-reporting of either status or benefit receipt, because they may also (partly) reflect a reality of over-use, and of non-take-up and non-coverage (Immervoll et al., 2004).

In addition, when cross-national survey projects are concerned there is often the problem that the information contained by the contributing national surveys differs between countries. For instance, specific questions about benefit reciprocity may be posed differently in different countries (e.g. with reference to a different period in time), there may be differences in design between countries (e.g. whether all household members answer questions, or whether there is proxy interviewing, in which case one member also gives information regarding other members), there may be different understandings of particular benefits (the issue of functional equivalents: what is regarded as disability benefit in one country, may be regarded as early exit pension in another). Clearly, these kinds of problem affect the cross-national comparability of findings and should be kept in mind.¹²

2.4 Conclusion

Benefit reciprocity data are a welcome additional source for cross-national comparison of welfare provision. Like the other two main sources – social rights and social expenditure – it has its problems, but also its potentialities.

In the remainder of this paper we will illustrate the value of social survey based reciprocity data by reporting on analyses of data from the EU-Statistics on Income and Living Conditions (EU-SILC).

3. Reciprocity of income benefits in working age populations of European welfare states: Analyses of EU-SILC data

3.1 Introduction

We are interested in the pictures that emerge from analyses and European wide comparison of social survey based benefit reciprocity data. Given the relative uniqueness of our analysis we will try and answer the following rather broad empirical questions, rather than to test any pre-formulated hypotheses. Of course, we will try and interpret our findings in the light of existing knowledge and ideas about differences and similarities in the size and character of welfare provision in European countries and clusters of countries.

We will focus on benefit reciprocity among the working age populations of European countries, i.e. the population aged 16-65 years, rather than among the total populations. With this we exclude analysis of benefit reciprocity among pensioners, which are a sizeable and often needy part of the population. However, in a number of our analyses they would dominate the results, while pensioners and pensions have a character and problematic often quite distinct from that of the working age population and the benefits focusing on them. We will analyze benefit reciprocity among pensioners in a later stage, and pay attention to the fact that they may not only receive pension benefits, but other types of benefit as well.

The positive choice for focusing on the working age population resides in the fact that most non-pension income benefits are targeted at precisely this part of the population, where they aim to

¹² See Immervoll et al. (2004) for a discussion of these problems in the EU Labor Force Survey. We will discuss problems in EU SILC in the data and methods section of this paper.

provide (additional) income when earning a living through work, at a level seen as sufficient and/or appropriate, is not or no longer possible.

It should be realized, as we explained before, that a single reciprocity statistic, as e.g. the proportion of the working age population that receives a specific benefit, in itself is difficult to qualify, as high or low, or as good or bad. First, what is high or low should be seen in the perspective of the size of the proportion of the working age population that has income needs in relation to the formal coverage rate of a scheme. A low/high reciprocity rate may reflect a low/high need, or a low/high formal coverage rate. And secondly, whether a proportion is good or bad depends on one's idea on the main function of the welfare state, i.e. whether it should be pro-active and prevent that people become needy, leading to low reciprocity rates, or whether it should be reactive and focus on curing situations of need, mostly leading to higher reciprocity rates. While the first has traditionally been a stronger focus of Scandinavian welfare states, the second was a stronger focus in European continental and Southern countries, but the preventive perspective is gaining support (D'Haeseleer & Berghman, 2003). This perspective links up with seeing benefit reciprocity rates mostly as indicators of 'benefit dependency' among the working age population (OECD, 2003a), which as a term tends to have negative connotations. These remarks imply that in our interpretations of our comparative results, where possible, we will refer to the relative sizes of need in working age populations, and we will refrain from evaluative qualifications in terms of good or bad.

The questions we will address are:

1. What proportions of the working age population say to receive specific income benefits in the countries of Europe? Benefits regard those related to the risks of unemployment, sickness, disability, social assistance, (early) pension, and survivorship.
2. What are the amounts of benefit received, relative to the median income among the working age population?
3. What clustering of countries do we see if we combine the dimension of benefit reciprocity rate from question 1 and the dimension of relative amounts from question 2?

3.2 Data and methods

Data

In this paper we analyse data from the EU-Statistics on Income and Living Conditions (EU-SILC), which is the EU reference source for comparative information on income distribution and social inclusion at European level. It collects comparable micro-data on income, housing, material living conditions, demographic characteristics, education, health and labour market participation.

EU-SILC is output harmonized, that is, EU countries deliver EU-SILC data to Eurostat, following a common framework, which defines common guidelines and procedures for data collection, common concepts (e.g. income, household) and classifications, as well as a harmonized list of variables, but it is left to countries to decide how the data are collected (from surveys and/or registers).

The reference population in EU-SILC includes all private households and their current members residing in the countries at the time of data collection. Persons living in collective households and institutions are generally excluded from the target population. Minimum effective sample sizes of households and individuals (persons aged 16 or over) differ between countries depending on population size, and they differ between the cross-sectional and longitudinal components of EU-SILC. See table 2.1 in Atkinson and Marlier (2010) for details and numbers.

Annually two types of data are collected and provided to Eurostat: 1) cross-sectional data for households and their members pertaining to a specific year, and 2) longitudinal data pertaining to changes over a time period of 4 years at the individual level. In our analyses we use the cross-sectional year-based data. Our focus is at the cross-sectional, individual level data, but for some of our variables we also make use of cross-sectional household level data (for details see under 'methods')

EU-SILC started in 2003 in six Member States¹³ (BE, DK, GR, IE, LU, AU) and Norway. The first data release pertains to 2004, including information on 13 Member States (AU, BE, DK, EE, FI, FR, GR, IE, IT, LU, PT, ES, SW), plus Norway and Iceland. From 2005, GE, NL and UK joined, along with the rest of the new Member States (CY, CZ, HU, LV, LT, PO, SK, SI). Bulgaria and Romania joined in 2007. In our analyses we use data from the years 2004-2009, and include all countries for which data are available (NB: Since EU SILC measures all income components, including benefit reciprocity, for the year prior to the survey year, in the presentation of our results we will refer to the measurement years, i.e. to 2003-2008).

The quality of the EU-SILC data is analysed and discussed in detail in a number of publications (e.g. Atkinson & Marlier, 2010; Iacovou, Kaminska, & Levy, 2012; Lohmann, 2011). There are many issues at stake, which cannot be discussed in detail here. However, we would like to mention some specific aspects that affect cross-national comparability, and which have to be kept in mind when interpreting our analyses and findings:

- Sampling designs: Some countries sample dwellings or addresses (CZ, GE, ES, FR, HU, LV, LU, MA, NL, AU, PO, PT, RO, UK), while others sample households (BE, BG, CY, GR, IE, IT, SK), or individuals (DK, EE, LT, SI, SW, FI, IS, NO)
- Fieldwork periods: Most countries concentrate the fieldwork in the first half of the calendar year, but IE and UK conduct surveys throughout the year, while BE, IT, MA, NL, AU and SE carry out the fieldwork in the second half year
- Data collection: In most of the participating countries income and labour market activity data are collected through surveys, but in some 'register' countries (DK, FI, IS, NO, SW, NL, SI) income data are from national registers. There is also a difference in surveys: in most countries household members are interviewed individually, while in some countries one person in the household delivers information on all members (this proxy-interviewing takes place in DK, FI, NO, NL, IE, while to some extent it also takes place in IS, SW, LV, SI).
- Non-response: Non-response rates differ strongly between countries. For instance, the overall non-response rate in the personal interview for the whole sample was below 10% in 2008 in RO, SK, CY and PT, while it was highest (at 45%) in DK
- Income data: The reference period for income data is the previous calendar year, but in IE it is the year prior to the interview, while in the UK income data regards the interview date.

Specifically regarding our central variable of benefit reciprocity additional details are important to note.

Firstly, at the individual level, the EU-SILC User Data Base (USB) provides data about reciprocity of benefits for the social risks of unemployment (UE), old age (OA), survivors (SV), sickness (SIC), disability (DIS), and educational allowance (EDU). At household level there is information about social assistance (SA), family related benefits (FAM), housing allowance (HA). The data available regards the total amount of benefit received in the previous year (by person or household).¹⁴ This means that

¹³ Country name abbreviations are explained in Appendix table 2.

¹⁴ This amount is calculated by Eurostat from the original data which regard the average monthly amount and the number of months received. This more detailed data is not available in the User Data Base.

an amount measured is a function not only of the monthly amount of benefit a person or household received during the period it was claiming the benefit, but also of the duration of this period in months. While the amount of payment will usually reflect the generosity of the benefit scheme (e.g. in terms of formal replacement rate), longer duration may not only reflect larger generosity of the scheme (in terms of maximum entitlement period), but also a longer duration of the situation of need (e.g. a longer unemployment period). Thus, a higher amount of benefit received may in one case reflect a higher monthly payment, while in another case it may reflect a longer duration of entitlement, while in still another case it may reflect a longer duration of the needy situation a person is in. Amount of payment and entitlement duration of payment are two central aspects of benefit generosity¹⁵, and it is a pity they cannot be distinguished in EU-SILC. When longer-term benefits are concerned, like disability benefit, old age/early retirement benefit and survivor benefits, the duration of entitlement and needy situation is longer and mostly covers a full year, which means that differences in amounts measured will mostly reflect differences in amounts of payment. In case of unemployment benefit, sickness benefit and social assistance, payments may have a shorter duration than the full year, which means that differences in entitlement and need duration may influence differences in amounts measured more strongly. In addition, in case of all benefits (with the exception of social assistance) people may receive partial benefits when they are e.g. partially unemployed, partially disabled, or partially on retirement. This is not visible from the data in the UDB, and it implies a fourth factor that may account for differences in amounts measured. Without additional data the effects of the various factors cannot be singled out. Obtaining such data is a substantial challenge, since it would require gathering and analysing information from all EU countries about which benefits are actually included in the EU-SILC data, about the formal designs of schemes (eligibility, entitlement, duration rules), about the actual duration of benefits received, and about full and partial reciprocity.

Secondly, for each person in the UDB we measure receipt of benefit if the amount received is larger than 0. At aggregate (country or group) level the proportion of recipients of a benefit can be higher as a function of the size of need, that is the size of the group of persons that has encountered the risk covered by that benefit (e.g. unemployment, disability), and as a function of formal coverage, that is the size of the group of persons that is potentially covered by the formal eligibility criteria of the benefit scheme. A low/high proportion may thus indicate little/high need in the group or population at issue, or restrictive/generous eligibility criteria, or both. The effect of the strictness or generosity of eligibility criteria can be singled out when the proportions of recipients are corrected for the size of need (cf. the needs-balancing or needs-adjusting mentioned in section 2.2 of this paper). In our analyses we will correct reciprocity proportions whenever possible.

Thirdly, the fact that in 'register' countries (DK, FI, IS, NO, SW, NL, SI) income data, including income from benefit, are from national registers while in other countries the data are from surveys, might create a bias if and to the extent there would be systematic differences in recording benefit reciprocity between the two methods. Although there seems to be the general idea that reciprocity is underreported in surveys, which would imply that reciprocity rates tend to be higher in register countries,

Fourthly, with a view on the cross-national comparison of benefit reciprocity data the following caveats have to be mentioned.

1. EU-SILC is output harmonized which means that there is no common questionnaire with standard questions asking about benefit reciprocity and amounts. In addition, some countries do use questionnaires for data gathering, while others use registers. This means that it is not

¹⁵ Together with formal coverage, i.e. the degree to which the formal eligibility criteria of a benefit cover a specific population of potential risk bearers.

possible to say exactly how the benefit variables are measured in the various countries, and cross-national comparability may not be complete. However, a justified assumption is that measures closely follow the question wordings as they were applied in the European Community Household Panel, the successor of EU-SILC, in which standard questionnaires were used. These wordings are integrally shown in table 1.

2. As table 1 shows, per benefit type a number of sub-types is mentioned, however, in the UDB only 'aggregated' data is available, i.e. the UDB data do not contain details about which type of unemployment or old age related benefit it is exactly that is received.
3. The table also shows that in the case of unemployment the data may include reciprocity of not only income benefits, but also of 'activation' services. It is not known if and to what degree countries actually included this kind of services related data, nor is it known what kinds of services are included exactly.
4. EU-SILC uses a generic definition of 'social benefits' to be included in the reciprocity data (stressing collective organization, compulsory participation and solidaristic re-distribution), but given the complexity of benefit systems, as well as of their financing and administration, it may not be excluded that for instance in the case of old age and/or disability benefits, or in the case of family allowances, a specific needs provision is counted as a social benefit in one country, while a closely similar provision in another country is not.
5. Most countries deliver benefit and income data in net terms, with the exception of IS, DK, FI, NO, HU and SK, which are countries that report gross data. This means that levels of benefits and other income sources cannot be compared directly between the two groups of country.

Table 1: Questions underlying the measurement of benefit reciprocity data in EU-SILC

<p><u>UE (PY090) (unemployment)</u> Did you yourself receive in [previous year] any benefit related to unemployment, job creation or training?</p> <ul style="list-style-type: none"> - UE insurance benefit - UE assistance - Training/Retraining allowance - Placement, resettlement, rehabilitation - Other 	<p><u>EDU (PY140G/N) (educational related allowances)</u></p>
<p><u>OA (PY100) (old age)</u> Did you yourself receive in [previous year] any pension or benefit relating to old-age or retirement? Old Age Pension:</p> <ul style="list-style-type: none"> - Basic schemes (first pillar) – public - Basic schemes (first pillar) – private - Supplementary schemes (second pillar) – public - Supplementary schemes (second pillar) – private - Personal schemes (third pillar) - Means-tested welfare schemes <p>Early retirement schemes Other old-age related schemes or benefits</p>	<p><u>SA (HY060) (social exclusion not elsewhere classified /social assistance)</u> Did your household receive, at any time during [previous year], social assistance payment or corresponding non-cash assistance from the welfare office? (country specific schemes)</p> <ul style="list-style-type: none"> - Social assistance payment - Non-cash assistance
<p><u>SV (PY110) (survivors)</u> Did you yourself receive in [previous year] any survivor's pension or benefit, that is, for widows or orphans? Widow's pension</p> <ul style="list-style-type: none"> - Basic schemes (first pillar) – public - Basic schemes (first pillar) – private 	<p><u>FAM (HY050) (family related)</u> Did your household receive, at any time during [previous year], any family-related benefit, including maternity and single-parent benefits?</p> <ul style="list-style-type: none"> - Child allowance - Allowance for care of invalid dependants

<ul style="list-style-type: none"> - Supplementary schemes (second pillar) – public - Supplementary schemes (second pillar) – private - Personal schemes (third pillar) - Means-tested welfare schemes - Other widow’s benefits - Orphan’s pension/allowance 	<ul style="list-style-type: none"> - Maternity allowance - Birth allowance - Unmarried mother’s allowance - Deserted wife’s allowance - Other family-related benefits
<p><u>SIC (PY120) (Sickness)</u></p> <p>Did you yourself receive in [previous year] any benefit relating to sickness?</p> <ul style="list-style-type: none"> - Income maintenance benefits in case of sickness - Other sickness benefits 	<p><u>HA (HY070) (housing allowance)</u></p> <p>Did your household receive, at any time during [previous year] paid housing allowance or subsidy from public schemes for housing costs?</p>
<p><u>DIS (PY130) (Disability)</u></p> <p>Did you yourself receive in [previous year] any benefit relating to invalidity?</p> <ul style="list-style-type: none"> - Income maintenance benefits in case of sickness or injury - Compensation for occupational accidents and diseases - Invalidity pension - Other invalidity benefit, e.g. mobility and resettlement payments 	

Methods

The two central dependent variables of our analyses are whether individuals receive a social benefit (yes, or no) and if so, what the (relative) amount of benefit received is. In addition, we include a series of independent variables, which may determine benefit reciprocity and/or amount.

Dependent variables

In the present study we are interested in reciprocity of income replacement benefits among the working age populations of countries (individuals aged 16 to 65). We distinguish two aspects: whether or not a person has received a benefit (we call this ‘benefit access’), and if so, what amount has been received (we call this ‘benefit amount’).

Benefit access

We measure whether in the previous year persons received benefits related to unemployment, sickness, disability, survivorship, and (early) retirement (UE, SIC, DIS, SV, OA), and whether their household received a social assistance benefit (SA)¹⁶. We count reciprocity if the amount received is larger than 0. We thus have an access measure for each separate benefit type, for each individual aged 16 or older. We also measure whether at least one of the benefits is received. This measure of ANYCLAIM is 1 if this is the case, and it is 0 if not.

¹⁶ The data do not allow to assess which household member actually claims the social assistance benefit. However, since social assistance benefits usually are not personal benefits, but provide for the needs of households, we assign reciprocity to any member of a household that is 16 years or older. Likewise, we assign to each such member a proportional amount, i.e. an amount equal to the total sum received by the Household divided by the number of household members aged 16 or older.

At the national aggregate level we measure access as the percentage of persons in the working age population who receive a specific benefit, as well as the percentage of those who receive any benefit. The higher these access rates, the larger the part of the working population that receives one specific or more than one benefit.

Benefit amount

The amount of benefit received is measured for each benefit separately, for each individual aged 16 or older. Since in cross-national comparison it is rather meaningless to compare absolute benefit amounts we focus on amounts relative to some national standard. Several standards are possible, like e.g. median income, the poverty threshold, the minimum wage, etc. We opted for measuring the relative amount of a specific benefit as the ratio between the absolute amount received and the median of the total income of persons in the working age population. This measure, which can be used for cross-national comparison, reflects the degree to which incomes from benefits differ from total incomes. The higher the relative amount, the closer the benefit brings the person to an income level that is a minimum for 50% of the working age population in his or her country. We also measure the sum of amounts received by a person from all benefits and express this as a ratio of the median of the total income of persons in the working age population as well.

At the national aggregate level the relative benefit amount is measured as the median of the amounts of a specific benefit received among the recipients and the median of the total income of persons in the working age population. We also measure the median of the average amount received by all recipients from all benefits and express this as a ratio of the median of the total income of persons in the working age population.

Table 2 summarizes our measures.

Table 2: Measures of benefit access and benefit amount

	Benefit access		Benefit amount	
	Per benefit	All benefits	Per benefit	All benefits
Individual level	Reciency of benefit X	Reciency of any benefit X, Y, Z....	Amount of benefit X as percentage of median total income among working age population	Sum of amounts of benefits X, Y, Z... as percentage of median total income among working age population
National level	Percentage of recipients of benefit X in working age population	Percentage of persons in working age population that receive any benefit X, Y, Z...	Median amount of benefit X among recipients as percentage of median total income among working age population	Average of median amounts of benefits X, Y, Z... among recipients as percentage of median total income among working age population

3.3 Benefit reciency proportions and relative benefit amounts in EU countries

Benefit reciprocity proportions

First analyses of the proportions of the working age populations of EU countries who receive the benefits at issue for all EU-SILC waves revealed that in general these proportions fluctuate little over the years. As can be expected, most volatile are the reciprocity rates of social assistance and unemployment benefit, but over the 6 data years (2003-2008) even these rates fluctuate between limited boundaries. Very stable over the years are reciprocity rates of disability, old age and survivors benefit. Because of this stability we do not report here the rates for all years.¹⁷ In stead, we focus on the average of the rates over the years of analysis. Figure 3.3.1 shows these averages in a stacked way such that it also shows country differences in the total proportion of the working age population that receives a benefit.¹⁸

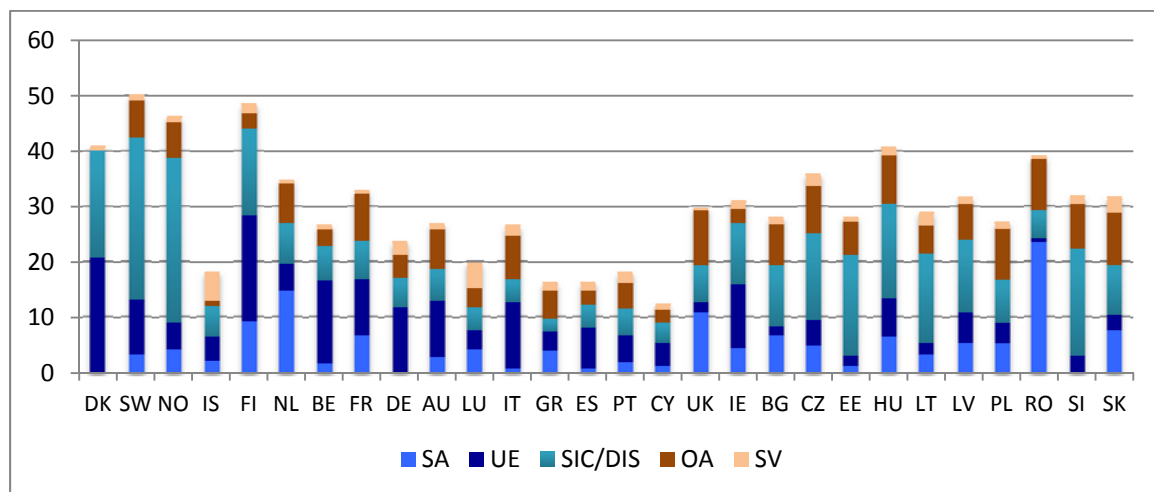


Figure 3.3.1 Average percentages of benefits received among working age population, by type of benefit and country, 2003-2008¹⁹

Source: EU-SILC, own calculations

Figure 3.3.1 shows that, between EU countries, there is a substantial variation in the total proportions of the working age population that receive a benefit, and in the composition of types of benefit as well.

As for the first, total reciprocity varies from some 12% only in CY to as much as 50% in SW. But there are some patterns visible. The Nordic countries (DK, SW, NO, FI) stand out as having largest proportions of benefit receipt (40%-50%) among their working age populations. Even in this crude measure of total reciprocity their status as most comprehensive welfare states of Europe is reflected.²⁰ Iceland, however, is an exception in this group, with a very low reciprocity rate. Rather

¹⁷ These, and other, detailed data will be published on the website of the European Data Centre for Work and Welfare (EDAC) later in the year: www.edac.eu

¹⁸ The total rates of benefit reciprocity in figure 3.3.1 are the sums of the per benefit rates. Since some people receive more than one benefit, this total is somewhat higher than the percentage of people that receive at least one of the benefits. Later in our analyses we will analyze the distribution of this latter 'anyclaim' rate.

¹⁹ Not all countries have data in all years. The percentages shown are averages of the years 2003-2008 for NO, SW, DK, FI, SI, BE, FR, AU, LU, IT, GR, ES, PT and IE. For NL, DE, CY, UK, CZ, EE, HU, LV, LT, PL, SI, SK averages are for the years 2004-2008, and for BG and RO averages are for the years 2007-2008.

²⁰ In conversations with colleagues about these results it was suggested that the high reciprocity rates of the Nordic countries might be due to the fact that these all are 'register' countries, i.e. countries that produce EU-SILC data on the basis of national registers, rather than on the basis of social surveys. It was suggested that benefit reciprocity in surveys may be under-reported by respondents, while using registers would produce accurate data. We do not know whether and to what degree this suggestion makes sense, but we would like to

than a reflection of non-Nordic-style meager social rights, the low dependency rates are due to extremely high labour participation among all categories of the population (Jonsson, 2001), i.e. to low social need (reflected also in the very low non-employment rate, shown in Appendix table 1). The Southern European countries (ES, PT, GR, CY) stand out as a group with very low reciprocity rates (12%-18%). Unlike in Iceland, this is not due to high labour force participation rates (see Appendix table 1), but to the traditionally low and selective formal coverage of the benefit schemes (cf. Flora, 1986). This implies that in the Southern EU-countries there is no income protection for larger parts of the working age population, irrespective of the type of social risk they incur. Italy is an exception in this group, with a higher access to unemployment benefits and pension schemes. The continental Western group of European countries (NL, BE, FR, DE, AU and LU) have total reciprocity rates at levels in between the high rates of the North group and the low rates of the South group, which reflects that their welfare states are in many respects less comprehensive than those of the Nordic countries, but more developed and encompassing than that of the Southern countries (Ferrera, 1996). This rank order between the three groups dates back to the early 1950/60s (Flora, 1986). The Anglo-Saxon countries (UK, IE) show total rates that equal those of the continental Western countries, which comes rather as a surprise given that generally their welfare states are typified as being based on liberal principles of market orientation, restricted state involvement and selectivity of welfare provision (Esping-Andersen, 1990). Here we see that nonetheless benefit reciprocity among their working age populations is as widespread as in the continental Western countries, or continental/conservative welfare states of Europe. This might indicate that in UK and IR the principle of selectivity, as it is typically characterized by applying means-tests, might not express itself so much in access to benefits, but in lower benefit levels instead. We will return to this issue later when we present our results concerning amounts of benefit received. In the welfare regime literature the group of Eastern European countries (BG, CZ, EE, HU, LT, LV, PL, RO, SI and SK) has not been clearly classified as having a specific type of welfare state. Instead, variation within the group, as regards the general principles and practices applied in welfare provision, is often emphasized (Aidukaite, 2009; Cerami & Vanhuyse, 2009). Typically, the post-communist European countries mix elements of the continental/conservative and, to a lesser extent, the Nordic social-democratic type (Fenger, 2007, p. 26). Here we see that this mix results in relatively high levels of benefit reciprocity among their working age populations, at levels even a bit higher than are found in the continental welfare states.

When looking at the composition of benefit reciprocity, by type of benefit, Table 3.1 shows large variation between countries. Nevertheless there are some general patterns. We see that the high overall reciprocity rates in the Nordic countries of DK, SW and NO are mainly due to large take up of health related (sickness and disability) benefits. Even in Iceland, where reciprocity rates are low, this type of benefit is relatively received most. An exception is Finland, where the high overall rate is more due to unemployment and assistance benefits, but the rate of reciprocity of health related benefits is still high. In the continental European welfare states, the emphasis is also more on unemployment and assistance benefits, and less on health benefits, but compared to the Nordic welfare states there is a larger role for older-age related benefits. This difference in composition may be (partly) due to a different channeling of non-activity. It is known that especially for older workers disability benefits, unemployment benefits, and early retirement schemes to a degree are functional equivalent protection schemes across European countries (De Deken & Clasen, 2011; Van Oorschot & Jensen, 2009). As a group the Eastern European countries show a similar pattern as the Nordic group: relatively high reciprocity rates, especially due to high rates of health related benefit take up, but with relatively low rates of unemployment and assistance benefits. There are exceptions (EE, SI) to the general pattern that social assistance is a relatively important benefit compared to

point to the fact NL and SI are also register countries, with rates that are lower than the Nordic ones, and to the fact that the issue of under-reporting of benefit reciprocity in surveys is contested (see main text in section 2.3.2).

unemployment benefit. A notable exception is RO, where by far more than half of all recipients have a social assistance benefit. In addition, most Eastern countries share a relatively high proportion of people with an older-age related benefit. The group of Southern countries shows least commonness of composition. As for the Anglo-Saxon countries, UK and IE, we see a strong difference in composition: means-tested social assistance dominating in UK, with unemployment benefits dominating in IE. In addition, in UK the role of health related benefits is larger than that of older-age related benefit, while this is reverse in IR. So, in terms of benefit reciprocity composition there is no common Anglo-Saxon pattern in Europe. If there would be a typical liberal welfare state pattern of benefit reciprocity (which is commonly associated with an Anglo-Saxon cultural background) we would suggest that UK would be closer to it than IE, because of the large role for means-tested social assistance. But as Figure 3.1 shows, such a liberal pattern does not seem to exclude relatively large proportions of people with health and older-age related benefits as well. Finally, and unsurprisingly, in all EU countries small proportions receive survivor benefits.

Benefit reciprocity amounts

Figure 3.3.2 shows the averages (over the years 2003-2008) of the median amounts of benefit received by individuals, expressed as a proportion of the median total income among the working age population of their home country. As explained in the methods section the amounts used to calculate the average amount rates regard what individuals have received in benefit over a full year, but these are by no means all full-year and full-time benefits. The amounts received may be from partial and/or temporary benefits, so the averages do not reflect any formal replacement rate. The rates can be interpreted, however, as a kind of actual or *de facto* replacement rates. It should also be stressed that the rates do not express an absolute standard of living, but a level of benefit income relative to the median total income of the working age population. A rate of say .25 for unemployment benefit shared by two countries, does not mean that on average people who receive such a benefit are equally well off in both countries, since the rate does not reflect any general wealth difference between the countries. A lower rate in a more wealthy country, may imply a much better standard of living for benefit recipients, than a higher rate in a poorer country. What a lower/higher rate in one country only reflects, is that in that country the amount of benefit received is a smaller/higher proportion of median income, than in another country.

Figure 3.3.2 shows the average amount rates in a stacked way such that it also shows country differences in the overall relative level of benefits received.

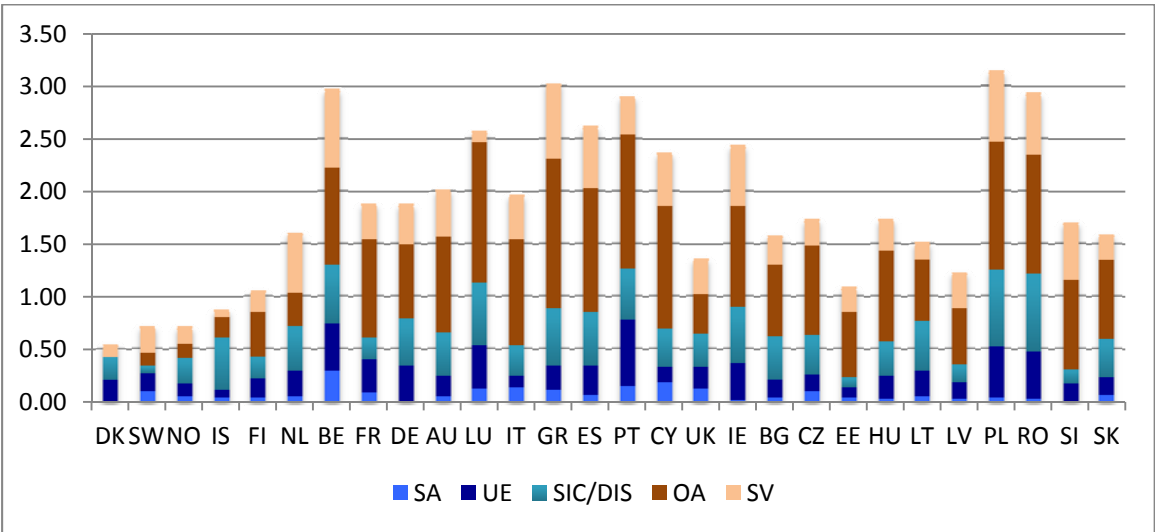


Figure 3.3.2 Average amount rates of benefits received among working age population, by type of benefit and country, 2003-2008²¹

Source: EU-SILC, own calculations

Comparing figure 3.3.2 with figure 3.3.1 gives the impression that at country level there is some inverse relation between the number of people who receive benefits and the amounts they receive. In the Nordic group many people receive a benefit (figure 3.3.1), but the relative amounts are lowest (figure 3.3.2), while in the Southern EU countries reciprocity rates are low, but amount rates are high. The Western and Eastern European countries seem to take in a position in between. In the next section we will return to this issue.

For now we concentrate on the amount rates. As said, the relative amounts are (very) low in the Nordic countries. This does not accord directly with the common view that welfare provision there is generous. Our findings may suggest that in the Nordic welfare states generosity seems to be organized more in terms of wider access, than in terms of high benefits. Although there may be some truth in this, since income benefits there generally have low ceilings, leading to overall rather low replacement rates compared to e.g. the continental welfare states (e.g. Van Oorschot & Jensen, 2009), there may be other reasons, if e.g. dependency spells are shorter, and more benefits are partial, compared to the other EU countries. The low rates could also be seen in the context of the countries' high level of wealth, which, contrary to the situation in much poorer countries, as e.g. in the East of Europe, makes that a larger difference between benefit incomes and total incomes still does not leave beneficiaries in dire circumstances. In poor countries, on the contrary, even benefits at minimum subsistence level will generally be closer to the overall level of living standard, since a larger distance would mean a living at an unsustainable level. The low rates in the Nordic countries may also reflect that there people qualify for more benefits and services than just standard income replacement, like e.g. temporary assistance when looking for a job. If in this way access to benefits is higher (as we have seen to the case in figure 3.3.1) and if such temporary assistance regards relatively small amounts, they will exert a downward pressure on average amount rates. For the time being we do not know which of these explanations makes more or less sense. However, one should note that in NO, SW and DK reciprocity of benefits is strongly dominated by health related benefits (figure 3.3.1). The amounts of these benefits therefore have a strong influence on the average amount rates. The low rates may thus also reflect easy access to short-term, temporary health related benefits, especially sickness benefit for workers. Additional analysis showed that this is especially the case for SW where 80% of health related benefits received regard sick pay. (In NO and DK this is 63%).

In the group of Western countries amount rates are higher than in the Nordic countries. BE is a country with exceptionally high amounts for all types of benefit, and seems to be, with Luxemburg, the continental welfare state where benefit levels are closest to the median income of the working age population. The amounts in the southern countries are also relatively (very) high. Combined with the low reciprocity rates (figure 3.3.1) this suggests that relatively few people receive relatively generous benefits. Where earlier UK and IE, both being Anglo-Saxon countries, differed strongly in the composition of reciprocity, we see here that they also differ in amount rates. Benefits in IE tend to be substantially higher than UK. Again indications that from the perspective of benefit reciprocity both countries do not unite into a single liberal, or Anglo-Saxon model, and that UK would be closest to such a model because of its relatively low levels of benefit and stronger focus on means-tested social assistance. In the Eastern countries relative benefit amounts are on average higher than in the Nordic countries, and lower than in the Western countries, with the notable exceptions of PL and RO

²¹ Not all countries have data in all years. The percentages shown are averages of the years 2003-2008 for NO, SW, DK, FI, SI, BE, FR, AU, LU, IT, GR, ES, PT and IE. For NL, DE, CY, UK, CZ, EE, HU, LV, LT, PL, SI, SK averages are for the years 2004-2008, and for BG and RO averages are for the years 2007-2008.

where amount rates are very high. Of course, the reasons behind the differences and similarities in amount rates between countries and regional groups have to be analyzed in greater detail. We already suggested some factors that should be taken into account, like: formal replacement rates, benefit ceilings (and floors), general wealth levels relative to subsistence levels, benefit spells and durations, range of benefits and services offered within our 5 main categories, etc. However, our impression is that the generally high amount rates in the Eastern countries of Europe are related to the generally lower standards of living: there is an absolute subsistence floor to benefits, which is relatively closer to the median standard of living in poorer countries, than it is in richer countries.

When we consider the amount rates per benefit type, figure 3.3.2 clearly shows that in nearly all countries rates are highest for older-age related benefits, which can be pensions, pre-pensions, disability pensions and such like. Second largest are the rates for health related benefits (sick pay and benefits for disabled workers), and for survivor benefits. Smaller amounts do we see for unemployment benefits, while amount rates for social assistance benefits are generally smallest. These differences can reflect various things. The low rates for social assistance could be expected, since these benefits are means-tested and generally do not pay out benefits higher than subsistence level. The lower rate of unemployment benefit, compared to health related benefits will be related to the fact that unemployment is usually of shorter duration than disability, and to the fact that sick pay is often a higher proportion of the wage than unemployment benefit. The relatively high amount rates for survivor benefits may reflect a high degree of socially recognized deservingness of this specific group, manifested in above-subsistence level benefits, and may in some cases also be related to the level of income of the deceased spouse in countries where contributions for wage related old age pensions include a component for a wage related survivor pension as well. We assume that the high rates for older-age related benefits reflect mainly the wage related character that such benefits generally have. That these rates are substantially higher than the health related amount rates, may be due to the fact that generally a larger proportion of disability benefits will be partial, and the fact that sickness benefits are of shorter duration, compared to older-age related benefits.²²

3.4 Elitism vs universalism: combining reciprocity rates and amount rates

The previous section suggested that there is a relation between reciprocity rates and amount rates. In figure 3.4.1 we cross both dimensions of benefit reciprocity and show the position of EU countries in the grid. The Y-axis shows the average of the amount rates of all benefits included in this study. It gives an indication of the average relative benefit level in a country. The X-axis regards reciprocity of any of the included benefits, thus accounting for multiple reciprocity. The rates shown are the rates of reciprocity of any benefit, divided by the non-employment rate of countries. That is, they are corrected for differences in the size of the population that tends to be dependent on benefit, so that the rates more closely reflect differences in social rights, rather than differences in social needs (see section 2 for a discussion of this 'needs-adjusting').²³ The full vertical and horizontal lines present axis means. The dotted vertical line is at X-axis value 1, and shows the point from where the proportion of people receiving any of the benefits is larger than the proportion of people who are non-employed.

²² Remember that in EU-SILC data benefit duration and partiality of benefit affects our measure of amounts received, because in EU-SILC amounts are measured as benefit income over the calendar year. The average amount of two persons having a benefit for half a year, will therefore be lower than the average amount received by a single full year receiver. In the same vein, two partial benefits will give a lower average than a single full benefit.

²³ For this reason the rates in figure 3.4.1 cannot be compared to the uncorrected total rates in figure 3.3.1. Another reason for incomparability is that the total rates in figure 3.3.1 are a sum of the rates of the separate benefits, while the rates in figure 3.4.1 regard reciprocity of any of the benefits, that is, they are corrected for multiple reciprocity.

What we suggested in the previous section is clearly revealed by figure 3.4.1: in the group of EU countries there is a negative relationship between national average amount rates and national average reciprocity rates (Pearson correlation is $-.55$). EU welfare states are positioned on a dimension that goes from 'low access, high amounts' to 'high access, low amounts'. Typically, the Nordic welfare states are at the latter end, which reflects their universal character in terms of high access, while the relatively low amounts may come as a surprise, but could hint at, as we suggested above, the effect of low benefit ceilings and a larger degree of partial and temporary health related benefits. (Again, lower amount rates in the Nordic countries should not be interpreted as signs of lower standards of living for benefit recipients in these countries). Surprisingly, at the other end of the dimension, Nordic universalism is not opposed to selectivity in the sense of an emphasis on means-testing and targeting of the poor, which is a dimension recognized traditionally in general approaches to welfare (Esping-Andersen, 1990; Titmuss, 1968), but to an 'elitist' approach, where selectivity takes the form of targeting benefits at smaller, specific categories within the working age population, for who relatively high benefits are available. Of course, this elitist approach will create a strong insider-outsider division regarding the distribution of social rights within the working age population.

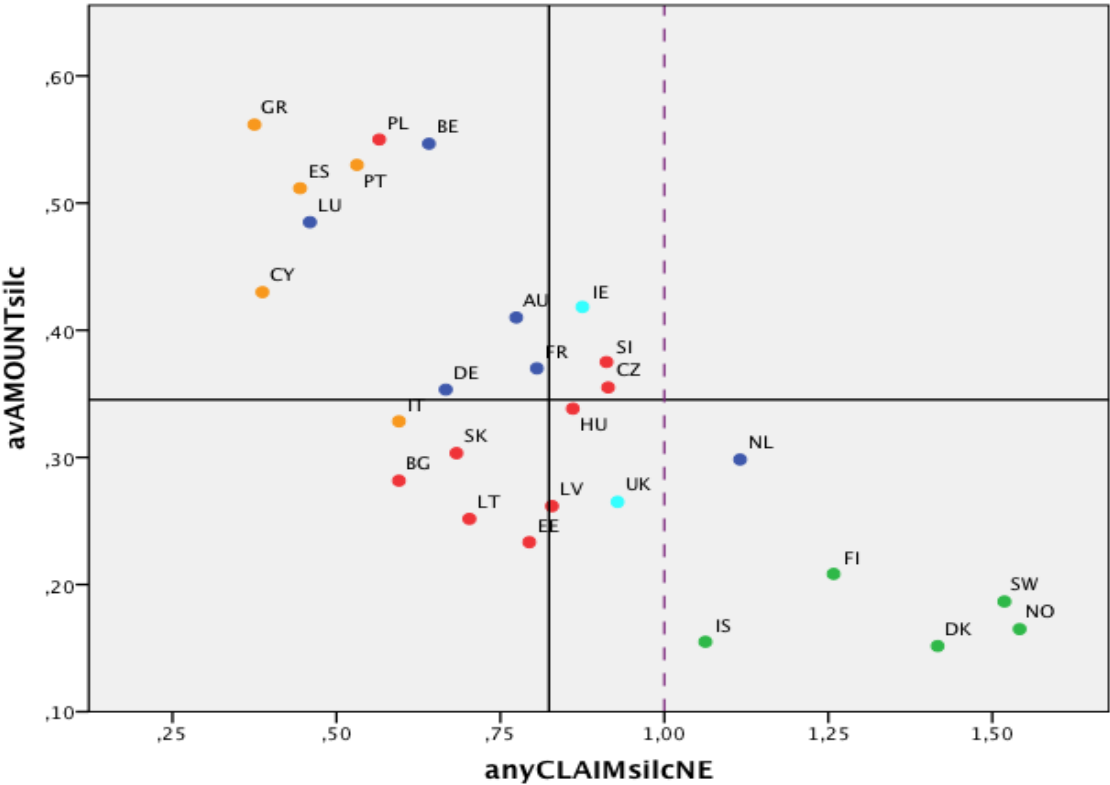


Figure 3.4.1 Average amount rates of benefits ('avAMOUNTsilc') by average reciprocity rates (anyCLAIMsilcNE') corrected for non-employment rates, 2003-2008²⁴
 Source: EU-SILC, own calculations

Figure 3.4.1 shows that the elitist approach is especially typical for the Southern European countries, with the exception of IT, while the approach is also apparent in BE, LU and PL. The Western European

²⁴ Not all countries have data in all years. The rates shown are based on averages for the years 2003-2008 for NO, SW, DK, FI, SI, BE, FR, AU, LU, IT, GR, ES, PT and IE. For NL, DE, CY, UK, CZ, EE, HU, LV, LT, PL, SI, SK averages are for the years 2004-2008, and for BG and RO averages are for the years 2007-2008.

countries tend to concentrate in the middle of the dimension, but there is some spread, as BE and LU are more Southern-style elitist, while NL is closer to the Nordic universalistic type. Where the literature is mostly unsure about how to classify the Eastern European countries along regimes type lines (see above), figure 3.4.1 shows that when benefit reciprocity characteristics are concerned, they typically concentrate in the middle of the dimension, with the notable exception of PL. Generally, then, in terms of access to and relative levels of benefit, the income benefit systems of the Eastern European countries resemble most those of the continental Western countries, rather than the Scandinavian or Latin countries of Europe. The two Anglo-Saxon countries do not form a single cluster. Although they have similar reciprocity rates, the average amount rates diverge rather strongly.

5. Conclusions and discussion

...to be completed....

Literature references

- Adema, W., & Ladaïque, M. (2005). Net social expenditure, 2005 edition. Geneva: OECD.
- Aidukaite, J. (2009). Old welfare state theories and new welfare regimes in eastern Europe: Challenges or implications. *Communist and Post-communist studies*. Vol 42, No. 1, pp. 23–39., 42(1), 23-39.
- Arents, M., Cluitmans, M., & Van der Ende, M. (2002). Benefit dependency ratios. An analysis of nine European countries, Japan and the US. *Final Report*. The Hague: Dutch Ministry of Social Affairs.
- Atkinson, A., & Marlier, E. (Eds.). (2010). *Income and living conditions in Europe*. Luxembourg: European Commission.
- Banks, J., Kapteyn, A., Smith, J., & Van Soest, A. (2004). *International comparisons of work disability*. Bonn: Institute for the Study of Labour IZA.
- Blekesaune, M. (2007). Economic conditions and public attitudes to welfare policies. *European Sociological Review*, 23(3), 393-403.
- Bonoli, G. (2007). Too narrow and too wide at once: The 'welfare state' as a dependent variable in policy analysis. In J. Clasen & N. Siegel (Eds.), *Investigating welfare state change: The 'dependent variable' problem in comparative analysis* (pp. 24-39). Cheltenham, UK: Edward Elgar.
- Castles, F. (2002). Developing new measures of welfare state change and reform. *European Journal of Political Research*, 41(5), 613-641.
- Castles, F. (2009). What welfare states do: A disaggregated expenditure approach. *Journal of Social Policy*, 38(1), 45-62.
- Cerami, A., & Vanhuyse, P. (Eds.). (2009). *Post-Communist Welfare Pathways. Theorizing Social Policy Transformations in Central and Eastern Europe*. Basingstoke: Palgrave Macmillan.
- Clasen, J., & Clegg, D. (2007). Levels and levers of conditionality: Measuring change within welfare states. In J. Clasen & N. Siegel (Eds.), *Investigating welfare state change: The 'dependent variable' problem in comparative analysis* (pp. 166-197). Cheltenham, UK: Edward Elgar.
- Clasen, J., & Siegel, N. (Eds.). (2007). *Investigating welfare state change: The 'dependent variable' problem in comparative analysis*. Cheltenham, UK: Edward Elgar.
- Clasen, J., Van Oorschot, W., & Kvist, J. (2001). On condition of work: increasing work requirements in unemployment compensation schemes. In M. Kautto, J. Fritzell, B. Hvinden, J. Kvist & H. Uusitalo (Eds.), *Nordic welfare states in the European Context* (pp. 198-231). London: Routledge.
- D'Haeseleer, S., & Berghman, J. (2003). Towards a social globalization: A blueprint for a global social security policy. In D. Pieters (Ed.), *European social security and global politics* (pp. 167-188). Den Haag: Kluwer international law.
- De Deken, J., & Clasen, J. (2011). Tracking caseloads: The changing composition of working-age benefit receipt in Europe. In J. Clasen & D. Clegg (Eds.), *Regulating the risk of unemployment: National adaptations to post-industrial labour markets in Europe* (pp. 297-317). Oxford: Oxford University Press.
- De Deken, J., & Kittel, B. (2007). Social expenditure under scrutiny: The problems of using aggregate spending data for assessing welfare state dynamics. In J. Clasen & N. Siegel (Eds.), *Investigating welfare state change: The 'dependent variable' problem in comparative analysis* (pp. 72-105). Cheltenham: Edward Elgar.
- Den Dulk, L., Van Doorne-Huiskes, A., & Schippers, J. (Eds.). (1999). *Work-Family arrangements in Europe*. Amsterdam: Thela Thesis.
- Dixon, J. (1999). *Social security in global perspective*. Westport, Connecticut: Praeger.

- Erlinghagen, M., & Knuth, M. (2010). Unemployment as an Institutional Construct? Structural Differences in Non-Employment between Selected European Countries and the United States. *Journal of Social Policy, 39*, 71-94.
- Esping-Andersen, G. (1990). *The three worlds of welfare capitalism*. Cambridge: Polity Press.
- Esping-Andersen, G. (Ed.). (1996). *Welfare states in transition: national adaptations in global economies*. London: SAGE Publications Ltd.
- Fenger, H. (2007). Welfare regimes in Central and Eastern Europe: incorporating post-communist countries in a welfare regime typology. *Contemporary Issues and Ideas in Social Sciences, 3*(2), 1-30.
- Ferrera, M. (1996). The 'Southern' model of welfare in social Europe. *Journal of European Social Policy, 6*(1), 17-37.
- Flora, P. (Ed.). (1986). *Growth to Limits*. Berlin: de Gruyter.
- Gallie, D., & Paugam, S. (Eds.). (2000). *Welfare regimes and the experience of unemployment in Europe*. Oxford: Oxford University Press.
- Gough, I. (1979). *The political economy of the welfare state*. London: MacMillan.
- Green-Pedersen, C. (2007). More than data questions and methodological issues: Theoretical conceptualization and the dependent variable 'problem' in the study of welfare reform. In J. Clasen & N. Siegel (Eds.), *Investigating welfare state change: The 'dependent variable' problem in comparative analysis* (pp. 13-23). Cheltenham, UK: Edward Elgar.
- Iacovou, M., Kaminska, O., & Levy, H. (2012). Using EU-SILC data for cross-national analysis: strengths, problems and recommendations. Essex: Institute for Social and Economic Research.
- Immervoll, H., Marianna, P., & Mira D'Ercole, M. (2004). Benefit Coverage Rates and Household Typologies: Scope and Limitations of Tax-Benefit Indicators. Paris: OECD.
- Jonsson, G. (2001). The Icelandic Welfare State in the Twentieth Century. *Scandinavian Journal of History, 26*(3), 249-267.
- Kaim-Caudle, P. (1973). *Comparative social policy and social security: a ten country study*. London: Martin Robertson.
- Kangas, O., & Palme, J. (2007). Social rights, structural needs and social expenditure: A comparative study of 18 OECD countries 1960-2000. In J. Clasen & N. Siegel (Eds.), *Investigating welfare state change: The 'dependent variable' problem in comparative analysis* (pp. 106-129). Cheltenham: Edward Elgar.
- Kittel, B., & Obinger, H. (2003). Political parties, institutions, and the dynamics of social expenditure in times of austerity. *Journal of European Public Policy, 10*(1), 20-45.
- Korpi, W. (2003). Welfare state regress in Western Europe: Politics, institutions, globalization, and Europeanization. *Annual Review of Sociology, 29*, 589-609.
- Kuitto, K. (2011). More than just money: Patterns of disaggregated welfare expenditure in the enlarged Europe. *Journal of European Social Policy, 21*(4), 348-364. doi: 10.1177/0958928711412223
- Lepianka, D., Van Oorschot, W., & Gelissen, J. (2010). Popular Explanations of Poverty in Europe: Effects of Contextual and Individual Characteristics across 28 European Countries. *Acta Sociologica, 53*(1), 53-72.
- Lohmann, H. (2011). Comparability of EU-SILC survey and register data: The relationship among employment, earnings and poverty. *Journal of European Social Policy, 21*(1), 37-54. doi: 10.1177/0958928710385734
- Marin, B., & Prinz, C. (2003). *Facts and figures on disability welfare*. Vienna: European Centre for Social Welfare Policy and Research.
- McCashin, A. (2004). *Social Security in Ireland*. Dublin: Gill and MacMillan.
- Nelson, K. (2012). Counteracting material deprivation: The role of social assistance in Europe. *Journal of European Social Policy, 22*(2), 148-163.
- OECD. (2003a). *Employment Outlook*. Paris: OECD.

- OECD. (2003b). *Transforming disability into ability: Policies to promote work and income security for disabled people*. Paris: Organisation for Economic Co-operation and Development.
- OECD. (2004). *Benefits and wages: OECD Indicators: 2004 edition*. Geneva: OECD.
- Pfeiffer, M. (2012). Comparing unemployment protection and social assistance in 14 European countries: Four worlds of protection for people of working age. *International Journal of Social Welfare*, 21, 13-25.
- Prinz, C. (Ed.). (2003). *European disability pension policies: 11 Country trends 1970-2002*. Aldershot: Ashgate.
- Scruggs, L. (2007). Welfare state generosity across space and time. In J. Clasen & N. Siegel (Eds.), *Investigating welfare state change: The 'dependent variable' problem in comparative analysis* (pp. 133-165). Cheltenham: Edward Elgar.
- Scruggs, L., & Allan, J. (2006). Welfare state decommodification in eighteen OECD countries. *Journal of European Social Policy*, 16(1), 55-72.
- Siegel, N. (2007). When (only) money matters: The pros and cons of expenditure analysis. In J. Clasen & N. Siegel (Eds.), *Investigating welfare state change: The 'dependent variable' problem in comparative analysis* (pp. 43-71). Cheltenham: Edward Elgar.
- Titmuss, R. (1968). *Commitment to welfare*. London: Allen & Unwin.
- Van Oorschot, W., & Jensen, P. H. (2009). Early retirement differences between Denmark and The Netherlands: A cross-national comparison of push and pull factors in two small European welfare states. *Journal of Aging Studies*, 23(4).
- Wilensky, H. (1975). *The welfare state and equality: structural and ideological roots of public expenditure*. Berkeley: University of California Press.

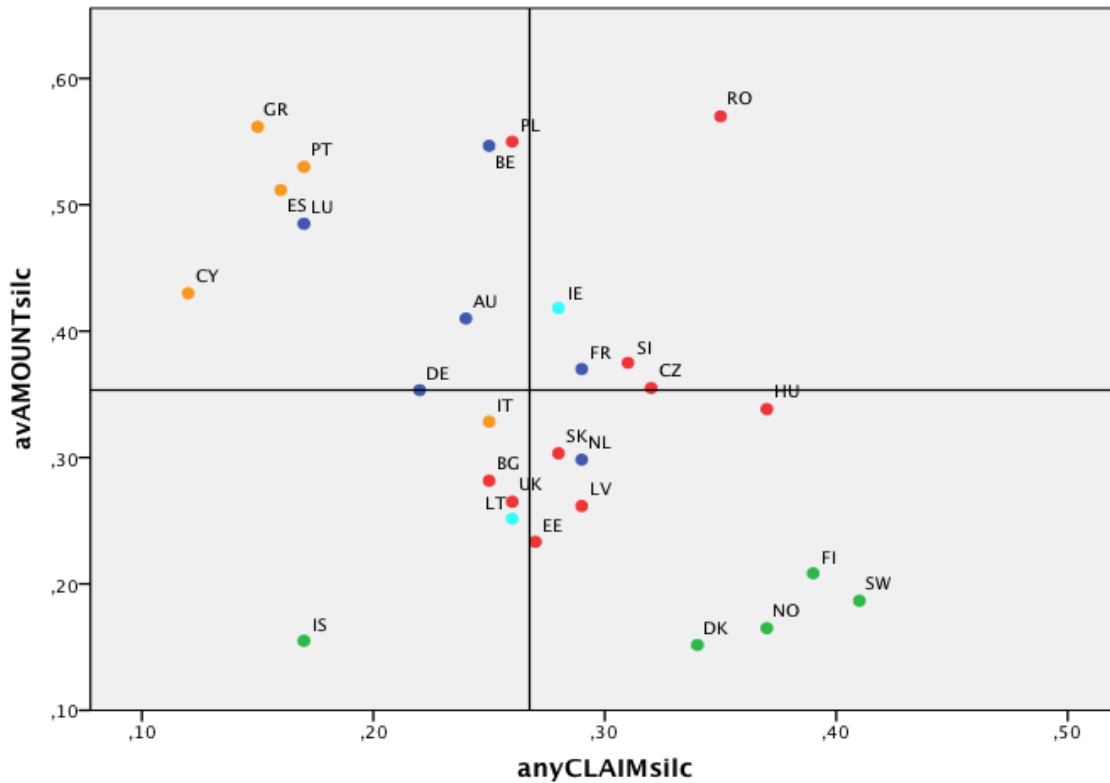
Appendix Table 1 Abbreviations of country names

AU Austria	ES Spain	LT Lithuania	SW Sweden
BE Belgium	FI Finland	LU Luxemburg	SI Slovenia
BG Bulgaria	FR France	LV Latvia	SK Slovakia
CY Cyprus	GR Greece	NL Netherlands	UK United Kingdom
CZ Czech Republic	HU Hungaria	NO Norway	
DE Germany	IE Ireland	PL Poland	
DK Denmark	IS Iceland	PT Portugal	
EE Estonia	IT Italy	RO Romania	

Appendix Table 2 Average employment rates (EM) and non-employment rates (NEM) among the working age population, for EU countries, 2004-2007 (source: Eurostat: based on a definition of employment as 'having worked for pay or profit for at least one hour in the reference week, or being temporary absent from such work')

	Average EMrate 2004-2007	Average NEMrate 2004-2007
DK	77	24
SW	73	27
NO	76	24
IS	84	16

FI	69	31
NL	74	26
BE	61	39
FR	64	36
DE	67	33
AU	70	31
LU	63	37
IT	58	42
GR	60	40
ES	64	36
PT	68	32
CY	70	31
UK	72	28
IE	68	32
BG	58	42
CZ	65	35
EE	66	34
HU	57	43
LT	63	37
LV	65	35
PL	54	46
RO	58	42
SI	66	34
SK	59	41

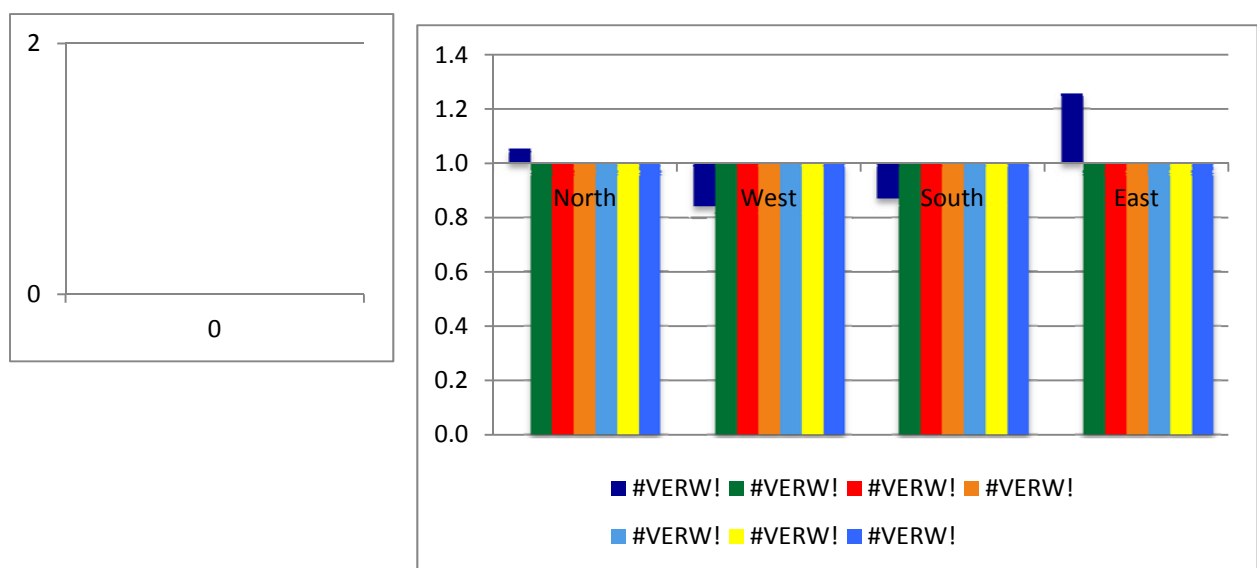


Appendix figure 1 Average amount rates of benefits ('avAMOUNTsilc') by average reciprocity rates (anyCLAIMsilcNE'): averages for 2003-2008²⁵. NOT corrected for non-employment rates

Source: EU-SILC, own calculations

²⁵ Not all countries have data in all years. The percentages shown are averages of the years 2003-2008 for NO, SW, DK, FI, SI, BE, FR, AU, LU, IT, GR, ES, PT and IE. For NL, DE, CY, UK, CZ, EE, HU, LV, LT, PL, SI, SK averages are for the years 2004-2008, and for BG and RO averages are for the years 2007-2008.

Activity status



The EU-figure shows that European people that consider themselves to be unfit or disabled for work and people that consider themselves to be retired are the largest categories of benefit recipients. No less than 85% of the working age unfit Europeans and 90% of the working age retired Europeans receive a benefit. Categories with low reciprocity rates are carers and domestic workers, as well as students and full-time workers. In the group of European people who consider themselves as unemployed about 50% receives any of the benefits.

The high percentage of recipients among the unfit and retired is not surprising, since health and older age are social risks that are especially covered in European social security systems for the working age population. In addition, people might tend to qualify themselves as unfit or retired because they have a related benefit. The fact that 50% of the unemployed have a benefit is more interesting, because this may indicate that parts of the unemployed populations are excluded from unemployment protection. This may have several reasons, such as limited formal coverage of schemes and non-take-up among those who would be eligible. For the moment we leave this issue for later study.

The Eu-wide pattern is visible in all four regions, but, again, the inequality along lines of activity status is smallest in the Nordic group. Typical of the South and West group is that benefit reciprocity is relatively low among the self-reported unemployed, while it is relatively high in the West group. Apparently, unemployment in itself is much less of a guarantee to be eligible for income support in the East and in the South, if it is not explicitly due to or related to health problems or older age.

Especially in the South, health problems and older age seem to function as required *passe partout* for income benefits.