LIS
Working Paper Series

No. 565

The Endangered Middle Class?
A Comparative Analysis of the Role Public Redistribution Plays

Ursula Dallinger

June 2011

CROSS-NATIONAL
DATA CENTER
in Luxembourg

Luxembourg Income Study (LIS), asbl

The Endangered Middle Class?

A Comparative Analysis of the Role Public Redistribution Plays

Prof. Dr. Ursula Dallinger
Dep. of Sociology, FB IV
University of Trier
54286 Trier
email: dallinger@uni-trier.de
Phone: +49 651 2012610

Abstract

This article contributes to the debate on the decline of the middle class by engaging in a cross-national comparison of the role public income redistribution play for the relative income position of the middle, and its change over time. The analysis distinguishes between the development of market as compared to disposable incomes, since different dynamics shape each. Moreover, the broad category of “a middle class” is sub-divided into three groups. The analysis is based on a dataset, covering the period from 1985 to 2005, constructed from the micro-data of the Luxembourg Income Study.

The result of the analysis indicates that government income redistribution mainly improves the position of the lowest income group, while the highest income group experiences losses. The income position of the middle classes shows little change as a result of income redistribution. The pro-poor orientation of the welfare state is especially strong in continental European countries. In the decades examined public redistribution increasingly influenced the distribution of market incomes. In most countries, market distribution was characterised by gains to the top and losses to the bottom quintile which redistribution did not fully compensate for. The middle income groups lost little over time, with respect to both market and disposable incomes. However, the distance between the middle and the top incomes grew remarkable. This might best explain the public debate about an endangered middle class.

1 Introduction

The last decades have seen repeated debates about the increased polarization of the income distribution and the emergence of a new ‘precarious’ class. Such polarization seemed to imply a thinning out or even an end to middle-class society, as more and more people now populated the upper and lower classes. Earlier, research on social inequality focused on the socially excluded; today, the focus is on the middle class. A decline of the middle class is seen as problematic not just because it means an expansion of the lower class, but because a broad middle class is taken as evidence of having successfully achieved social equilibrium. A declining middle class suggests the social balance is threatened. Furthermore, the middle class is considered a mediating force that dampens political tensions between lower and upper classes. If this role weakens, extreme positions and conflicts might increase.

In liberal English-speaking countries, the diagnosis that increasing polarization of the income distribution may lead to a declining middle class is not new. A comparable polarization is now becoming evident in European countries as well. It can be seen even in countries with comprehensive welfare states and highly regulated labour relations, which seemed immune from serious income inequalities due to a highly developed system of social entitlements, as well as by employment protection and worker-employer codetermination in setting wages. In these countries, like Germany or France, there was little empirical evidence of polarization in the income distribution until the 1990s (Alderson et.al., 2005). Still, it remains unclear just how much the income position of the middle class has worsened. Could it be that the middle merely fears social decline, given the turbulence in classes below it? This article contributes to the debate by analysing how the welfare state affects the income position of the middle class and also its decline.

The starting point is Esping-Anderson’s argument that welfare states exert a stratifying effect on the income distribution (1990). This stratification is driven not only by the interests of the working class or the poor, but also by other influential groups in society (with power resources). The argument is often made, especially by those who study Scandinavian welfare states that meeting the demands of the middle class – or, conversely, attending to their need for security – is crucial for the success of welfare policies. Their “beneficial involvement” comes in the form of crucial electoral support for welfare policies, as well as the taxes and social welfare contributions they made to the system they thereby support (Goodin and Le-Grand, 1987; Rothstein, 1998; Korpi and Palme, 1999).

The influence of redistribution (via transfer payments, taxes and social security contributions) on the relative income position of the middle classes can be clarified by distinguishing between market income and disposable income determined by the government.[1] An alleged change in the position of the middle classes must also take into account changes in the income positions of other classes. Based on the changes over time of the income share individual quintiles of the population receive, it can be shown that other groups experienced more severe changes in income share during the last decades than did the middle classes.

The measures of income distribution used in the empirical analysis are calculated on the basis of the Luxembourg Income Study (LIS) micro-data. The data cover the time from 1985 to 2005, and encompasses 19 European and English-speaking countries. International comparison of the income position of the middle classes sheds light on the variable impact institutions have. In addition, an empirical analysis of the endangerment of the middle class requires differentiating between lower, middle and upper middle classes, a distinction rarely made either in public debate or in the scholarly literature. As the results show, there is a substantial difference between lower middle and upper middle classes.

Many factors contribute to increasing income disparities, not all of which can be considered here.[2] Yet we can advance the state of research if the much-discussed decline of the middle class is examined using differentiated income concepts and reliable income data. Analysing the influence of the welfare state on the development of income positions of different groups within the broad middle class allows one to establish which specific segment of the middle class is threatened. Analysing differences in the distribution of market and disposable income allows us to better understand the influence of the welfare state on social stratification and to whose advantage it is. The following questions emerge from these considerations. To what extent do transfer payments and taxes change market income positions, especially in the middle class(es)? Which groups benefit from redistribution and which are burdened? How do the countries examined here differ with respect to the position of the middle class(es) in the income hierarchy? Did the market income position of the middle class(es) change in the last few years? Did the stratifying influence of welfare policy change in a fashion that could explain the current discussion of the "threatened middle class"?

[1] Services and infrastructure provided by the state for free or at low cost, as well as occupational options in the public sector, naturally affect the welfare position of the middle class, but are not the subject of this study. LIS data is used to examine the impact of the welfare state on the income position of the middle class.

[2] These include: demographic shifts, migration, women's employment, globalization and the transformation of industrial nations into post-industrial service provision-oriented and knowledge societies (Alderson and Nielsen, 2002; Atkinson, 2005; Kenworthy, 2007).

The discussion begins with a review of the comparative research on the declining middle class and the polarization of the income distribution. Then the methods and the dataset used in this study are described. The result of analysing the impact of redistribution on the position of individual quintiles in the income distribution, including the middle class(es), is then presented, and is followed by the conclusion.

2 The decline of the middle class in the context of income polarization

A decline of the middle class was first observed in the U.S, the UK, Australia, Canada and New Zealand. In these countries, a debate about it began early, as there had been a general increase in income disparity starting in the 1970s (Kutmer, 1983; Gordon, 1983; Rosenthal, 1985). Most European countries experienced this increase later, as they typically had a more encompassing regulation of the labour market and a stronger cushioning of income distribution disparities through welfare state policies and programs. Rather than discussing the threat to the middle classes, European social research focused instead on the increasing deregulation of gainful employment. That deregulation particularly affected groups in the workforce with low skills and qualifications, hence with a weak bargaining position in the labour market, and led to discussions of “precarious work” and what came to be called the condition of “precarity”. This, and poverty, however, were seen not as risks to the middle class but as dangers the lower classes faced. Today, however, the middle class is perceived as threatened even in countries like France or Germany that have coordinated market economies or corporatist welfare states (Chauvel, 2007; Grabka and Frick, 2008).[3]

The endangerment of the middle classes could thus be a product both of changes in employment regulation and of welfare state retrenchment. Empirical knowledge about middle class decline, however, does not stem from systematic research on the mechanisms that generate inequality but rather is a by-product of studies on changing income distributions and employment patterns. OECD reports on the development of income distributions, for example, indicate that the income situation of the middle classes was stable until around 2000 in most OECD member states. Only a few countries (Norway, Turkey, Mexico) saw either gains or losses for the middle class (Förster and d’Ercole, 2005: 15) from the mid-1990s to the mid-2000s (Growing Unequal, 2008: 29). These findings are based on the percentage share individual quintiles receive of total disposable household income. OECD reports also provide information on the *absolute* increase in income and which quintile disproportionately benefits

[3] Such deregulation of employment is a factor among cohorts newly entering the workforce, making the threat to the middle class a problem in younger cohorts, as Chauvel (2007) showed for France.

or suffers. The data indicate that between 1980 and 2000, disposable (net equivalent) income changed in such a manner that the middle lost ground in many countries. Gains in the top quintile during the 1990s were largest in the U.S., Sweden and Norway, but such gains did not exist in all OECD countries. In Germany, net income in the middle class increased significantly less than net income in the highest class, and even dropped in the bottom quintile (Growing Unequal, 2008: 30).[4]

Comparative studies on polarization of the income distribution and employment also provide insight into the “threatened middle class”, because polarization affects the middle. Alderson et al. (2005) show, based on data on disposable household income (equivalence weighted) from LIS for 16 industrialized countries from the 1980s to 2000, that the income position of the middle classes worsened in countries where polarization increased – and that across a rather heterogeneous mix of countries: the UK, the U.S., Finland, Australia, Luxembourg and Austria. By contrast, at least to 2000, Germany, France, Belgium and the Netherlands were distinctive for their stable income distribution, as measured by decile shares of total income. Canada and Sweden even saw the polarization of income distribution decrease during this period.

Cross-national variation does not provide much by way of clues to the country-specific characteristics that might explain a changed income position of the middle class. Nevertheless, given the spectrum of countries, it stands to reason that in places where disposable household net income was more equally distributed, or polarization only modest, the welfare state could be a factor influencing the decline of the middle class. In Sweden, a country with high welfare state expenditures, both lowest and highest deciles shrank while the middle decile grew. The middle eroded, by contrast, in countries with low social expenditures and a marginal welfare state, such as the UK, the U.S. and Australia. Still, the ‘fate’ of the middle classes in a specific country often deviates from what could be expected given its regime type, so other causes and country-specific characteristics need to be sought to explain the shrinkage.

One of Alderson et al.’s significant findings is that the *time period* during which the middle class shrinks varies significantly between countries. Some countries began early, while others (such as Germany) only saw the gap in the income distribution begin to widen by the

[4] Even if one takes the relative income position of the middle, based on the ratio between median and average income, Germany is among the countries (CA, DK, FR, FI, IT, NO, SW, US) in which the middle has lost ground. Only in a few countries (TR, MX, IE) was the middle able to gain or did stability prevail (NL, NZ, JP) (Growing Unequal 2008).

early 2000s.[5] Some countries are 'latecomers' to the middle class crisis. Since Alderson's data are based on disposable income, which is affected by public redistribution, we can could assume that this is due to the impact of welfare state institutions.

Pressman's work (2007, 2009) analyses the same period, also using LIS data, and as he directly addresses the changing income position of the middle class and the influence of the welfare state on that position, it is of special note here. Pressman defines the middle class as a group whose income lies between 75% and 150% of median income. The impact of welfare redistribution is then established by comparing the size of the middle class, calculated first based on income before taxes and transfers (from dependent employment, self-employment, interest, dividends, and rents), and then calculated based on net disposable household incomes adjusted for household size.

Figure 1: Size of the middle class before and after tax and transfers.

About here

As Figure 1 shows, redistribution has a remarkable effect in most countries examined: thanks to the welfare state, the percentage of the population classified as middle class rises, though not uniformly across nations. In the U.S. and Switzerland, taxes and transfers enlarge the middle class only by a few percentage points. In terms of market income, the societal middle in Switzerland is already broad so there is not much left for the welfare state to do. In the U.S., again in terms of market income, the middle is as big as in European countries but gains much less from public transfers. The largest middle classes can be found in Sweden, Norway and Germany, to a large extent an achievement of the welfare state. Based on market income alone, the middle class in both Sweden and Germany is rather modest (15%), but with taxes and transfers, it increases to more than 40% of the population. There is, of course, considerable inter-country variation, but also different conclusions to be drawn depending on the basis for the observations. If one only takes market income, the middle class shrank between 1980 and 2000 in most countries, seriously so in the UK but not at all in the Netherlands.[6] If one instead takes (equivalence-weighted) disposable household income, however, then the change over time is small. Hence, the thesis of a shrinking middle class is confirmed primarily with respect to market income developments.[7] Still, this is offset by public redistribution, meaning

[5] The basis here is the annual disposable equivalence-weighted household income.

[6] Pressman includes the entire population. Given that pension systems create special disparities, analyses based on income distribution often only consider the population under 60.

[7] Another study by Pressman (2009) examines the influence of transfer payments by the welfare state (e.g., benefits for families) on the size of the middle class. This allows him to show that social security transfers in particular are what support a large societal middle.

that the stability of the household income distribution in some countries and marked changes to it at the expense of the middle in other countries can be attributed to the welfare state (Atkinson 2008:, 27f.; Alderson et al., 2005).

Research on the *polarization of employment structures* suggests that middle class jobs are vanishing due to "skill-based technological change" (SBTC) connected to globalization or the shift to a service sector economy, and that this has consequences for the earnings position of the middle class. SBTC approaches assume the middle becomes hollowed out due to changes in the demand for labour. The development of technology calls for higher skills among employees on the one hand, while globalization is assumed to threaten employees with lower qualifications on the other. Shifts to a service sector economy means that what were once mid-level jobs in the industrial sector – the skilled manual worker with adequate pay and social security benefits – vanish and are replaced by jobs that call for either higher or lower qualifications. There is empirical evidence for such polarization, inasmuch as the proportion of employees in professional and managerial positions (higher) as well as employees in personal services (lower) has increased in English-speaking countries and is now increasing in most European countries (Autor et. al., 2006; Goos and Manning, 2007; Goos et.al., 2009).

Other approaches analyse *organizational processes* within companies and their impact on the societal middle (Breen, 1997). During the 'Golden Age of Capitalism', blue-collar workers and intermediary classes improved their labour market position, with aspects of service class employment conditions being extended to blue-collar workers. With the decline of working-class organizational power, privileges have been reduced. Additionally, changes in technology and new methods of monitoring – performance objectives, outsourcing, smaller entities within a company responsible for labour process and results – have worsened the position of intermediary jobs. The lower service class is especially affected by these new structures and processes, and has far more unstable employment conditions than do upper service classes I and II (Breen, 1997: 480).

However, there are a number of lacunae in the literature on the crisis of the middle class:

a) Until now, the decline of the middle was part of the description of a changing income distribution. But by a closer analysis of different income dimensions and adequate income concepts, we can determine more precisely whether the middle is losing ground due to the labour market or due to welfare state restructuring.

b) Studies based on the *size* of the middle class do not differentiate between lower, middle, and upper middle class. Yet it is quite likely their income positions develop in different directions.

c) Only scrutinizing the changes in the size of the middle class is too narrow a perspective. The changes in its position need to be compared with the experience of other income groups over time to determine the extent to which the middle (only) or other strata (in addition) are under pressure.

d) The hypothesis of a vanishing middle is based largely on examining market incomes. Other than in liberal countries, however, disposable income shows high stability. Is this still true post-2000? Is this true of more European countries than those that Pressman examined?

e) Theoretically, the welfare state stratifies, but the Pressman data indicates this stratifying function changes over time. Is this function diminishing over time? Is it, seen cross-sectionally, the middle or other groups that are protected as a result of welfare policy or social provisions?

3 Data and Methods

Much research on the middle class concentrates on changes to its size. To establish this size, relative income limits such as 75-150% of median income are used (Pressman, 2007; Grabka and Frick, 2008), though they are not the only possible endpoints. Because this determines which households do or do not fall within the definition of the 'middle class', one needs to be careful about choosing the boundaries.[8] A disadvantage of this method is that it can create a very broad middle class. This article instead defines the middle class in terms of quintiles in order to capture the internal differentiation of a societal middle. The relative income position of the middle (and other) societal groups is defined as the share of income, individual quintiles have as a proportion of total income.[9] Classifying by quintiles means the "middle" middle class in a narrow sense is the middle 20% of the income distribution (Q3). Below it, one finds the "lower" middle class (Q2), above it, the "upper" middle class (Q4). The three quintiles taken together (e.g., Q2 + Q3 + Q4, equalling 60% of the income distribution) then form the entire middle class. Q1 is then the bottom or lowest class, Q5 the topmost or upper class.

[8] See Foster and Wolfson (1992/2010) for the details.
[9] This method is also used by Mahler et al. (2010).

Like other methods, this delineation is arbitrary and draws boundaries that may well not be so strict in social reality. However, it yields a more precise quantitative delineation of different middle classes, and their income shares can be compared to other groups.[10] This can be used for comparisons that are both cross-national and longitudinal. Furthermore, ratios between income shares can be calculated to indicate how *much* the income of a higher quintile exceeds the income of another quintile. Such quintile-based ratios are similar to percentile ratios for deciles (i.e. a tenth of the population) that are often used in studies of income distribution. They can be interpreted in the same way as percentile ratios (e.g., P90/P10 or P90/P50). Thus, a Q5/Q3 ratio of 2.5 means that the 20% of the population with the highest income has 2.5 times more household income than does the middle fifth of the population.[11]

In the literature, the distributive effect that taxes, contributions and social transfers have on the income distribution is assessed by comparing distribution measures for market income with distribution measures for disposable household income (Garfinkel et.al., 2005; Mahler et.al., 2010; Kenworthy and Pontusson, 2005). This distinction between market income and net disposable income a household or person has is crucial for the following analysis. Market income refers to all income derived from involvement in the market, whether through dependent employment or other market activity. Disposable income (or net income) adds taxes, social insurance contributions, and all other transfer payments (child benefits, unemployment compensation, etc.). These two concepts reveal different social dynamics influencing the income distribution. Market income largely reflects trends in labour and capital markets, while welfare state redistribution policies effects are manifested in the concept of net disposable income (Atkinson, 2007; Kenworthy, 2007). Both income types are usually weighted to take the number and age of persons living in a household into account. Here we calculate distribution measures for both types, based on household income, using the equivalence weighting method suggested in the LIS.[12] Accordingly, the redistributive effect of welfare policies is captured in the difference between the share of total market income and the share of disposable income the quintiles receive.[13] It may be positive or negative. If the quintile share of income increases after taxes and transfers, the respective income group gains

[10] Foster and Wolfson (1992/2010) distinguish between “income-space” and “people space”. The approach used here is like the latter.

[11] For other methods of analysing the relative income position of the middle class, see Förster and d’Ercole (2005), OECD (2008) and Chauvel (2007).

[12] This is the square root of the household income. Equivalence weighting not only accounts for different numbers of household members but also accounts for their age-specific financial needs and the financial advantages of living in a household (e.g., ‘economies of scale’).

[13] The method can also be applied to quintile ratios (Q5/Q3).

from redistribution. If the quintile share of income decreases, the income group loses from redistribution.

However, one should keep in mind that the difference between pretax and post-tax transfer income only *approximates* government redistribution effects, as it accounts largely for cash benefits and direct taxation. Yet public policies also have redistributive effects through the delivery of social services (Garfinkel et al., 2005) and indirect taxation (reducing the value of transfers). Furthermore, it can not be claimed that market income is a really non-governmental situation because the very existence of these public programmes exerts an influence on the market behaviour of the people. Without redistributive programmes market activities (saving for private pensions, demanding higher market wages in order to save for retirement) would have to fill the gap (Saunders, 2010). Also, the welfare state may influence the size and income position of the middle classes by creating employment opportunities in qualified (semi-)professional jobs, such as for nurses, teachers, or social workers. Taking these limitations into account, our data provide reliable indicators of the redistributive impact of direct monetary transfers within social policies.

Longitudinal and comparable data on household market income and net disposable household income is needed to conduct cross-national comparisons of the influence the welfare state has on the income position of the middle class and its change over time. The LIS micro-data provide such a basis because they are generated from high-quality, national-level micro-data that is recoded using a consistent methodology to guarantee international comparability. For the purposes of this article, income distribution measures are calculated only for persons of working age (25 to 60), thereby avoiding country-specific effects of differing length of education or variation in pension schemes.[14] The lowest as well as the highest one percent of the observation was cut off to eliminate outliers (top and bottom coding).

Six waves of LIS data are available, but since the first wave only surveyed a limited number of countries, the time period analysed here uses only the second to sixth wave to ensure a consistent selection of countries. These five waves cover the period from the mid-1980s to the mid-2000s, and though the waves are labelled 1985, 1990, 1995, 2000 and 2005, data from the individual countries vary around these time points. The exact dates are given in Table A1 in the appendix. We use the central year of each wave here. For purposes of cross-national comparison, observations summarizing all waves are analysed. Change over time is

[14] For example, the bottom quintile (Q1) contains many elderly persons whose income is derived from public pensions. This biases the results. Market income will appear overly low, while the effect due to social transfer payments will seem larger than it would be without senior citizens.

shown separately. To reduce the complexity of presentation, only the starting (1985) and end-point (2005) are shown, not the three waves in between (see Table A2). The results are not distorted by doing so, because the data on the income position of individual quintiles show no extreme fluctuations or breaks. Presentation of all the periods, to establish whether particularly strong change occurred in a given period, would take up too much space.

Not all countries or waves in this dataset include variables for both market and net disposable income (Table A1 gives the details by country and wave). Nevertheless, observations on both income concepts are available for 19 countries. The gaps in the income data have the result that the countries presented in the figures are not completely identical.[15]

4 The income position of the middle class in international comparison

This section first examines the cross-national variation in the position of the middle classes in the distribution of both market income and disposable income, with differences between the three middle classes of special interest. Second, we analyse the impact of welfare redistribution on the share of income which accrues to the five income groups, and how this changes over time. Third, we show how the relative income distribution changed from 1985 to 2005 with respect to market and disposable income. Based on the development of the income position ratio (of middle to top group), we suggest an (unusual) explanation for the middle class crisis.

To compare the position of the middle classes within the distribution of market income, we look at the quintile shares the individual income strata in each country obtain, calculated as an average over all the waves. As Figure 2 shows, there is a similar structure – a broad gap between the highest quintile and all other quintiles, and smaller differences between the bottom and the middle – in every country. If we take the example of Germany, the lower middle class has about 12% of the market income, the middle middle class about 16%, and the upper middle class about 22%. The bottom quintile must make do with only 7% of the market income, while the top quintile has 43%. This structure, however, varies between countries, as one can see by the different vertical positions of the dots. Figure 2, which sorts countries based on the size of the market income share of Q3, indicates that Scandinavian countries give the middle the best income position, with the highest quintile not pulling away from the middle as strongly as in a number of other countries. The short distance between the shares of market income that the middle and the top receive does not necessarily benefit the

[15] In some tables, countries are grouped by regime-type for greater clarity, but the regime-type concept is not systematically employed here.

lowest quintile: in Denmark and Sweden, in particular, this quintile does not profit from the closer position of middle and top.

The income share of the middle middle is, from a comparative point of view, the ‘worst’ in France, the Netherlands, Germany and the U.S.. Among continental European countries, the unfavourable position of this group is accompanied by a better position of the lower middle and the lowest quintiles. In some liberal countries, notably Canada and Australia, the middle middle class occupies a relatively good position when compared to continental European countries. But in all the liberal countries examined here, the lowest quintile is in a more unfavourable position. So, the lower middle and the lower class are relatively better off in continental European countries. Since market income is the basis, this is likely due to the regulation of labour relations and coordinated wage bargaining. By comparison, the nature of labour relations in liberal countries leads to a distribution that tends to benefit the middle middle and upper middle classes. The upper middle class obtains a larger share of the market income in these countries, while the lower middle class has a relatively smaller share.

It is instructive to take a closer look at Luxembourg and Switzerland, whose inequality structures rarely receive attention. In both countries, both market income and disposable income of the middle *and* lower quintiles are relatively high in international comparison. Welfare redistribution measures do not have much left to do, because the market incomes are already relatively balanced.

Figure 2: Quintile shares of market income (countries ordered by size of Q3)

About here

Figure 3: Quintile shares of disposable income (countries ordered by size of Q3)

About here

Does the position of the middle change when the same measure is calculated on the basis of the net disposable household income? This would make the influence of the welfare state noticeable. Generally speaking, as shown in Figure 3, the lower income quintiles gain while the top quintile loses. The degree to which this takes place of course varies by country. More remarkable is how little relative movement there is in the income share of the middle classes. In terms of disposable income, the Scandinavian countries remain the most advantageous for the middle middle class, and after redistribution, the lowest quintile moves considerably closer to the middle. Germany is among the bottom third of the countries examined in terms of the income position of the middle middle, though the lowest quintile does relatively better. In terms of the income distribution that reflects welfare state measures, Germany, along with France, the Netherlands and Spain, range even behind the U.S. and the UK with respect to the position of the middle middle quintile.

However, as was true of the market income distribution, the lower middle class and the lowest class quintiles are better off in continental European countries than in liberal countries. Here, the middle receives a more advantageous position, though the lowest quintile receives a relatively disadvantageous income share compared to other countries. Still, one cannot generalize, and there are exceptions among both “liberal” and “continental” groups, especially among the former. In terms of distance to the top, for example, both Canada and Australia provide more “equality” to the middle – meaning less distance to the top – than do the countries of continental Europe.

Which income class is protected by government redistribution?

Has the influence of the welfare state on the income distribution changed over time? To assess this, Figure 4 shows the difference in income shares individual quintiles received before and after taxes. For each country, the five bars show the size of redistribution in each of the quintiles, the first set for the mid-1980s, the second for the mid-2000s. In all countries, and for both dates, government-directed redistribution increases the income share of the first quintile and decreases the share of the fifth quintile. The quintiles in the middle, by contrast, change little (that is, between pretax and posttax/transfer income). Relative to market income, the share of the lower middle and the middle middle classes increase slightly in most of the countries, while the share of the upper middle class decreases. In terms of redistribution, the three middle classes thus do not show the same patterns.

All in all, welfare state interventions provide a larger volume of income for the lowest class, and reduce the volume of the highest. The middle classes are much less affected by such redistribution than are bottom and top quintiles. The middle income groups are therefore neither sucked dry for the benefit of the lower (or upper) incomes, nor do they benefit more from welfare state redistribution than does the lower class. These findings substantiate a “pro-poor pattern” of welfare state intervention. In international comparison, the variation is only with respect to scope: “The redistribution effects of net social welfare transfers have the same pro-poor pattern in all nations, differing only by degree, not direction… The majority of the net costs of supporting the welfare state are paid by the top income persons in each nation" (Garfinkel et al. 2005, 15, 16).[16]

Figure 4: Change in redistribution by the welfare state.

About here

The variation over time in how strong the welfare state's influence is on the income distribution is instructive. Between 1985 und 2005, the expansion of the income share of the lowest income class through redistribution increased, other than in the UK. The extent to which the income share of the top quintile is reduced through government intervention grew during the same period – again with the exception of the UK. In short, over these two decades, the effect of welfare state-induced redistribution is increasing in advanced industrial nations. Its impact is much less significant for the middle classes than for groups at the top and the bottom of a given society. It is true that the importance of redistribution to the lower middle, as well as to the lowest class is of increasing importance in most countries, but it is only in a few countries (U.S., Sweden, Poland, Luxembourg) that the extent of redistribution become more significant for the middle middle between 1985 and 2005.

Public redistribution without compensation of market income inequality

That the welfare state increasingly influences the distribution of income does not necessarily mean improvement for the lower class, or that the upper class is at a disadvantage. For though the welfare state tries to improve the "welfare-share" of the lowest income group(s) more than that of other groups, a betterment of their situation did not occur due to the dynamics of market income. To the contrary: despite an increasing redistribution, the position of the lower class has worsened. This can be seen in Table A2 in the appendix, showing the income shares of individual quintiles in terms of both market income and disposable income, and changes to these shares between the mid-1980s and the mid-2000s. The losses in market income share of the lower income groups were moderated, but were not fully compensated at the level of disposable income. Instead, the top income group shows an increase in market income share, which persists despite an increase in redistribution, a pattern of course with cross-national variations. Net growth took place at the top of the income hierarchy. At the bottom, despite compensation provided by the welfare state, the share of income accrued has become smaller.

[16] The "pro-poor pattern" differs between countries. In the Scandinavian countries (Sweden, Norway, Finland, Denmark) as well as in Germany, the income share of the lower class increases more significantly due to redistribution than in Luxembourg, Poland or the U.S.. But on has to keep in mind that change is being described, not the starting level of the quintiles. Hence, the lowest income group in Luxembourg or Poland already has an advantageous market income share, while this income share is lower in Scandinavian countries, giving the process of redistribution more work to do.

The three individual groups in the middle differ significantly with respect to the consequences of changes to market and welfare state income distribution. In many countries, the upper middle quintile benefitted from the gains to the upper income quintile. The lower middle and middle middle had to accept a net worsening of their positions. Still, their shrinking market income share is almost completely compensated for. Thus, the lower middle shares the destiny of the lowest quintile, but only has to take small losses in market income and disposable income.

How much losses at the bottom are compensated for, and gains at the top moderated, varies between countries. In Germany, for example, the bottom quintile's share of market income declined between 1985 and 2005 by 2.35 percentage points, but disposable income by only 0.5 percentage points. The market income share of the topmost quintile rose by 2.46 percentage points, while disposable income grew by merely 0.76 percentage points. However, losses at the bottom and gains at the top, even after welfare state intervention, are more evident in most countries than in Germany, including in the Scandinavian countries. Only in Denmark and Switzerland (and then from 1990 to 2005) do the quintiles below the top show gains.

As noted above, changes to market income distribution and changes in the income distribution resulting from welfare policy are far more significant at the top and bottom than in the middle. In that middle, the welfare state has to compensate for far less relative losses over time than it has to at the bottom, and it skims off fewer resources from the middle than from the top. Redistribution partially compensates for growing market disparities, but it is unable to compensate the far more serious worsening at the level of the distribution of market income. Thus, the "pro-poor pattern" of welfare state intervention has its limits.

Middle classes left behind - the growing gap between top and middle

The "pro-poor pattern" of welfare state redistribution and the stable participation of the middle in market income do not seem congruent with the diagnosis of a threatened middle class. Both aspects – few losses to middle class market income, as compared to lower incomes, and the impression decline is occurring – become more plausible if one looks at the distance between middle and top. This can be done by measuring the ratio between the income share of the top fifth (Q5) and the share of the middle fifth (Q3; the ratio is then Q5/Q3). The magnitude is shown in Figure 5, calculated first using market income and then using disposable household income, for those countries which have data for both 1985 and 2005. The light grey section of the bars shows the reduced distance between middle and top achieved through welfare state redistribution; countries are sorted by the magnitude of the Q5/Q3-ratio, lowest values first. These show a comparatively short distance between middle and upper class, with the four Scandinavian countries coming first in both market income and net disposable (household equivalent) income. In 1985, Luxembourg was still one of the countries where middle and top were closer than in other countries, because the top quintile's income was reduced and distributed primarily to the two lowest quintiles. Greater discrepancies between middle and top are allowed in conservative and liberal countries.

The discrepancies between middle and top increased substantially until 2005, especially in market income, and to a lesser degree in disposable income. The *relative* position of the middle has worsened because the upper class now receives a larger share. The welfare states make more efforts to reduce the growing gap in market income between middle and top, but cannot compensate. Especially in Denmark, Norway and Luxembourg and the liberal U.S., the degree with which the welfare state reduced the income distance has markedly increased. Again, the UK is an exception, as it reduced its redistributive effort.

The distance between middle and top clearly grew in some liberal countries. The upper class in the UK now has 3.3 times more market income share than the middle. In the U.S. it is 3 times, and in disposable income, the distance between middle and top has also grown, despite increased governmental involvement. In the UK, the gap has grown because the welfare state has not tried to halt it. In Poland, there were remarkable gains to the top fifth of the market income share, leaving the middle behind. The welfare state largely equilibrated this trend, and the relative situation of the middle has only moderately worsened. In Sweden, the upper class in the mid-1980s had more than twice the middle class's market income, but due to redistribution, this has been reduced to being 1.6-fold. In 2005, the market income of the top quintile grew to 2.2 times that of the middle class. But the discrepancy in disposable income merely rose to 1.7 times, so the welfare state remained the relative distance between middle and top almost constant. In Germany, as in Australia, the situation is quite stable. The share of market income of the top to the middle quintile rose very little, the welfare state intervened a bit more, with the result that the middle class income position relative to the top was almost stable.

Figure 5: Changes in the income position of the middle class and welfare state effects

About here

Overall, and in most countries, the top quintile has pulled away from the middle in market income. This trend is less visible in disposable income, because in most countries the welfare state intensified its redistribution efforts – other than in the UK, where it decreased, and Sweden, where it remained constant, dampening the distancing of the topmost quintile. The top quintile distanced itself in market income from the middle, and because the middle did not participate, this may have engendered the impression of "being left behind", even if it is the lowest income quintile that is losing much more ground, comparatively speaking.

5. Conclusion

This article embedded the debate on the shrinking middle class in a broader perspective. It was first suggested that a differentiation between lower middle, middle middle, and upper middle could be analytically useful: perhaps not all parts of "the" middle class showed the same pattern. Then, rather than simply looking at its changing size, the relative income position of the middle classes over time was compared with the income positions of those with low and high income. Which group actually experienced a decline? Political sociologists have suggested that welfare states have a stratifying effect. So a cross-national comparison permits analysis of the impact welfare state measures have on the position of various middle classes. Furthermore, market income differs from the disposable income available after welfare state taxes and transfers. Is the claimed decline of the middle class only visible in market incomes? Or have things changed in the last decades, leaving the middle less protected by the welfare state and more vulnerable? What relation is there between the allegedly declining middle and the fate of the lower class?

Our data, based on observations of 19 countries between 1985 and 2005, does not confirm the hypothesis that the welfare state acts to improve the income position of the middle. Instead, it can be shown that the income position of the middle classes is far less dependent on the welfare state than is the position of the lower classes. The welfare state primarily stabilizes the socio-economic situation of the lowest income groups. Of the three middle quintiles, only the lower middle profits from it, and its share of total income – a measure of relative welfare position – grows. The income share of the middle middle is barely influenced by redistribution processes, neither increased nor significantly decreased.

As the income share of the upper middle and especially the topmost quintile is reduced, as one moves from market to disposable income, their role is to finance the redistribution. Yet both these quintiles have huge proportions of the market income, and it has even increased over time. The lead the topmost quintile has is by no means nullified by taxation and social contributions. So Garfinkel et al. are correct when they concluded: "In sum, welfare states are large engines of redistribution. The bottom three quintiles and elders are net beneficiaries in all societies” (2005: 18). Our analysis supports the “pro-poor pattern” of the welfare state, though it does vary between countries. In the decades from 1985 to 2005, transfers attributable to the welfare state could not compensate for the losses in market income of the lower class.

Continental European countries, in particular Germany, France, the Netherlands and Spain, have been able to lift the welfare position of the bottom quintile and of the lower middle. However, the middle middle is, comparatively speaking, relatively disadvantaged, and not much has changed over time in the large gap to the topmost quintile. Scandinavian countries, by contrast, have a middle middle with far less of a gap to the top. Also the low welfare share of the bottom quintile, based on market income, is quite strongly boosted in these countries. Scandinavian welfare regimes thus show a pattern that is both “pro-poor” and helps the middle class, supporting the thesis that because these countries have a broad spectrum of beneficiaries, they therefore also have a broad basis of acceptance as well as tax base. Liberal countries are quite heterogeneous by comparison. In some countries, market results already show an income distribution being brought into line, as in Germany for the bottom group. In others, there is a stronger welfare redistribution effect. Thus, both labour market and welfare state institutions shape the patterns of distribution observed, but in different combinations.

The development of both income levels over time is noteworthy. Because the share of total market income decreased the most among the lower classes, welfare state redistribution has had to support their incomes more and more to prevent further decline. In most countries, redistribution increases the income share of the bottom quintile, even more so in 2005 than in 1985. That still does not completely compensate for the decrease in market incomes. During the same time, the top quintile gained the most. The growing distance between bottom and top quintiles, in terms of market income, was partly reduced though welfare state mechanisms. In some countries, this has even stabilized the distance between the lowest and the uppermost income (in net household income). The finding that government increasingly cushions the impact of growing income disparities accords with other studies: “The moderate increase in inequality recorded over the past two decades hides a larger underlying trend. In developed countries, governments have been taxing more and spending more to offset the trend towards more inequality – they now spend more on social policies than at any time in history.” (OECD, 2008: 16)

This article shows the relative income position of the middle has remained largely stable. It is necessary to look at the growing distance between middle and top in order to understand the public debate over the possible decline of the middle. The proportion of market income going to the topmost quintile has increased so substantially that the middle may have gained the impression it was being left behind. The only reason the middle did not lose its position in the income hierarchy, however, is because the strong gains in market income at the top were partly offset by welfare state redistribution to the bottom. The welfare state prevents the upper income bracket from pulling away even more, and therefore stabilizes the gap between middle and top.

References

Alderson, A. S. and Francois N. (2002). *Globalization and the Great U-Turn: Income Inequality Trends in 16 OECD-Countries*, American Journal of Sociology **107**: 1244-99.

Alderson, A. S., Beckfield J. and Nielsen F. (2005). *Exactly How has Income Inequality Changed?* International Journal of Comparative Sociology **46**: 405-423.

Atkinson, R. (2005). *Inequality in the New Knowledge Economy*. In Giddens, A. and Diamond P. (Eds.). The New Egalitarianism. Cambridge: University Press, 52-78.

Atkinson, A. B. (2008). The *changing distribution of earnings in OECD countries*. Oxford: University Press.

Atkinson, A. B. (2007). *The distribution of earnings in OECD countries*, The International Labour Review **146**: 41-60.

Autor, D. H., Katz, L.F. and Kearney, M. (2006). *The Polarization of the U.S. Labor Market*, American Economic Review **96**: 189-194.

Breen, R. (1997). *Risk, Recommodification and Stratification*, Sociology **31**: 473-489.

Chauvel, L. (2007). '*Repatrimonialization' and the Middle Classes Adrift: Shrinking Middle in Europe*. Workingpaper.

Dustmann, C., Ludsteck, J. and Schönberg, U. (2009). *Revisiting the German Wage Structure*, Quarterly Journal of Economics **124**: 843-881.

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

Foster, J. E. and Wolfson, M. (1992/2010). *Polarization and the decline of the middle class*, Journal of Economic Inequality **8**: 247-273.

Förster, M. and d'Ercole, M. (2005). Income Distribution and Poverty in OECD Countries in the Second Half of the 1990s. OECD Social, Employment and Migration Working papers No. 22. www.oecd.org.

Garfinkel, I., Rainwater, L. and Smeeding T. (2005). *Welfare State Expenditures and the Redistribution of Well-Being: Children, Elderly and Others in Comparative Perspective*, LIS Working Paper No. 387.

Goodin, R. E. and LeGrand, J. (eds.) (1987). *Not Only the Poor. The Middle Class and the Welfare State*. London: Allan&Unwin.

Goos, M., Manning, A. and Salomon, A. (2009). *Job Polarization in Europe*, American Economic Review Papers and Proceedings (forthcoming).

Goos, M. and Manning, A. (2007). *Lousy and Lovely Jobs: The Rising Polarization of Work in Britain*, Review of Economics and Statistics **89**: 118-133.

Gordon, L. S. (1983). *Are Middle Level Jobs disappearing*? Industrial Union Department AFL-CIO.

Grabka, M. and Frick, J. (2008). *Schrumpfen der Mittelschicht – Anzeichen einer dauerhaften Polarisierung der verfügbaren Einkommen?*, Wochenbericht des DIW 75: 101-107.

Katz, L. F. and Autor, D. (1999). *Changes in the wage structure and earnings inequality*. In Ashenfelter, O. and Card, D. (eds.): Handbook of Labour Economics. Volume 3A. Amsterdam: Elsevier, 463-1555.

Kenworthy, L. (2007). *Inequality and Sociology,* American Behavioural Scientist **50 (5)**: 584-602.

Kenworthy, L. and Pontusson, J. (2005). *Rising Inequality and the Politics of Redistribution in Affluent Countries*, Perspectives on Politics **3**: 449-471.

Korpi, W. and Palme, J. (1999). *The paradox of redistribution and strategies of equality*. American Sociological Review **63**: 661-687.

Kutmer, B. (1983). *The Declining Middle*, The Atlantic Monthly, July, pp. 60-72.

Luxembourg Income Study (LIS) Database, http://www.lisdatacenter.org (multiple countries; analysis run in 2009 and 2010).

Mahler, V. (2004). *Economic Globalization, Domestic Politics and Income Inequality in the Developed Countries. A Cross National Study*, Comparative Political Studies **37**: 1025-53.

Mahler, V., David J. and Paradowski, P. (2010). *The political sources of Government Redistribution in the Developed World. A Focus on the Middle Class*. Paper presented at the conference: Inequality and the Status of the Middle Class. University Luxembourg.

OECD (2008). *Growing Unequal? Income Distribution and Poverty in OECD countries*. OECD Paris.

Pressman, S. (2007). The *Decline of the Middle Class: An International Perspective*, Journal of Economic Issues **41**:181–200.

Pressman, S. (2009). *Public Policies and the Middle Class throughout the World in the Mid 2000s*, Luxembourg Income study working paper 517.

Rosenthal, N. (1985). *The shrinking middle class?* Monthly labour review 1985: 3-10.

Rothstein, B. (1998). *Just Institutions Matter*. Cambridge: UP.

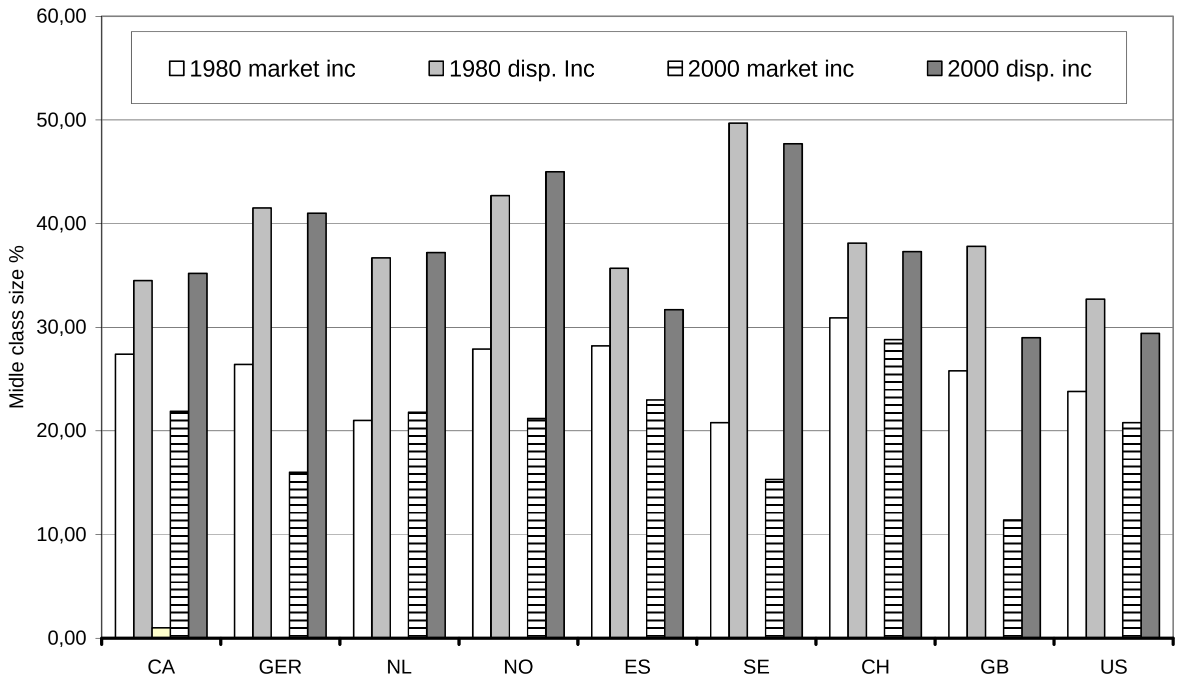
Saunders, P. (2010): Inequality and Poverty, in Castles, F.; Leibfried, S.; Lewis, J.; H. Obinger (Eds.), The Oxford Handbook of the Welfare State, 526-538.

Spitz-Oener, A. (2006). *Technical Change, Job Tasks and Rising Educational Demand: Looking Outside the Wage Structure*, Journal of Labor Economics **24**: 235- 270.

Thurow, L. C. (1984). *The Disappearance of the Middle Class*. New York Times February 5: F3.

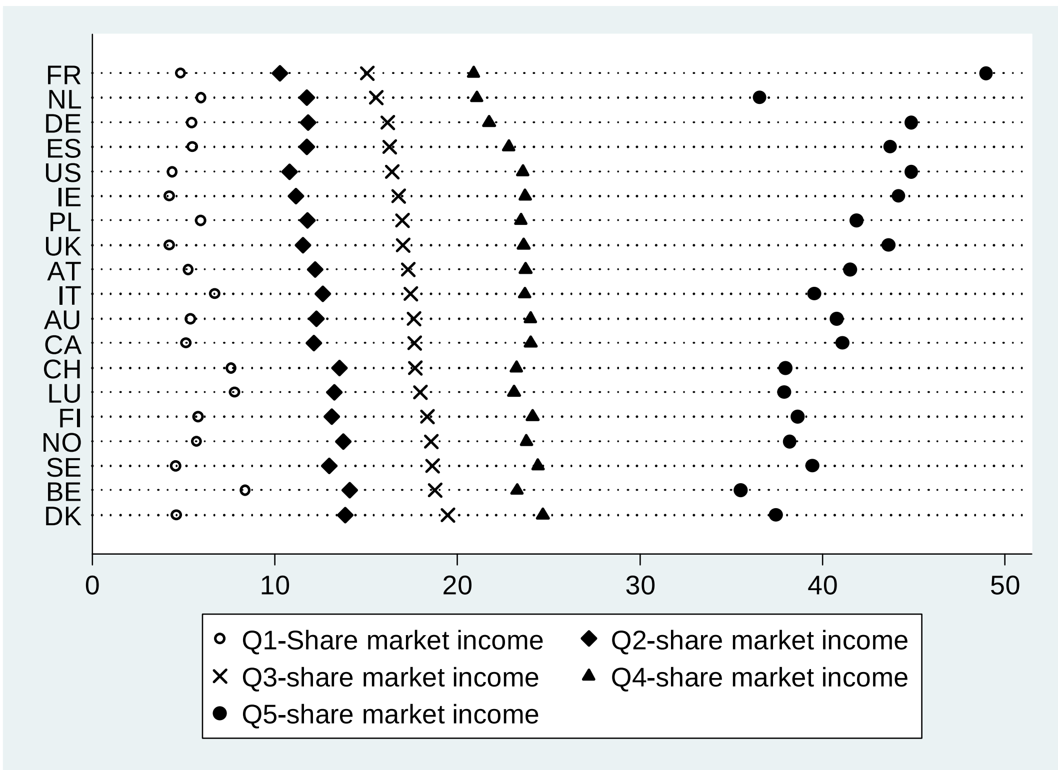
Figures and Tables in the Text

Figure 1: Size of the middle class, pre- and post tax and transfer income.



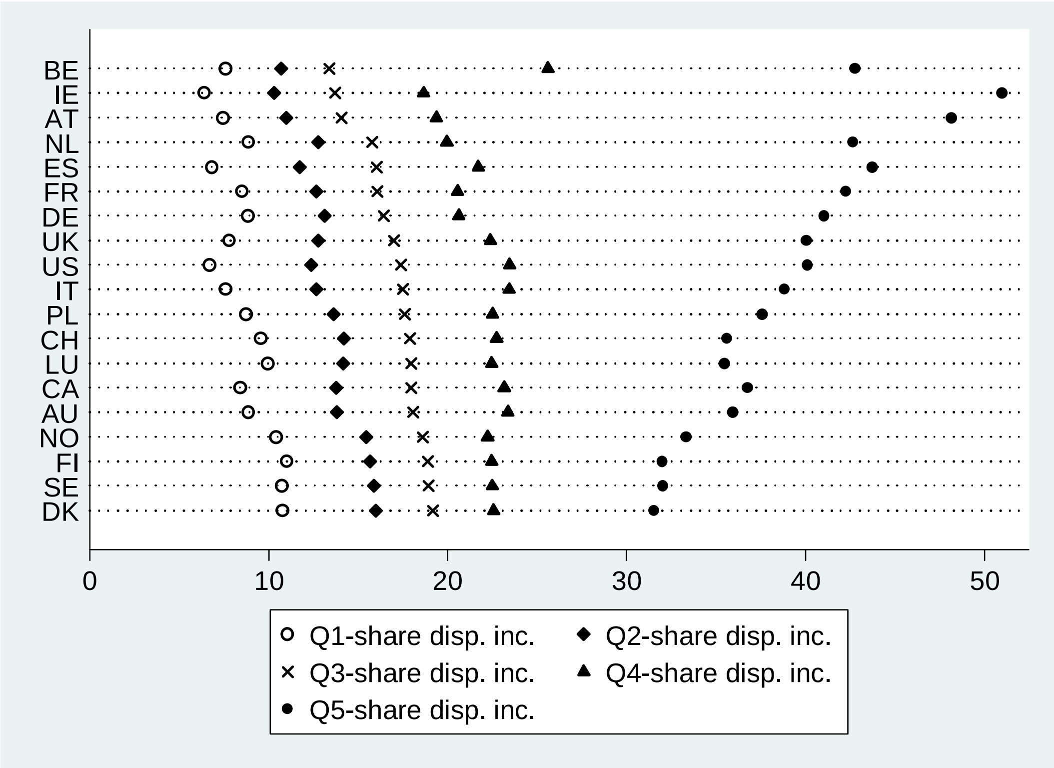
Source: Pressman 2007; own presentation.

Figure 2: Quintiles share in market income (countries sorted by size of Q3)



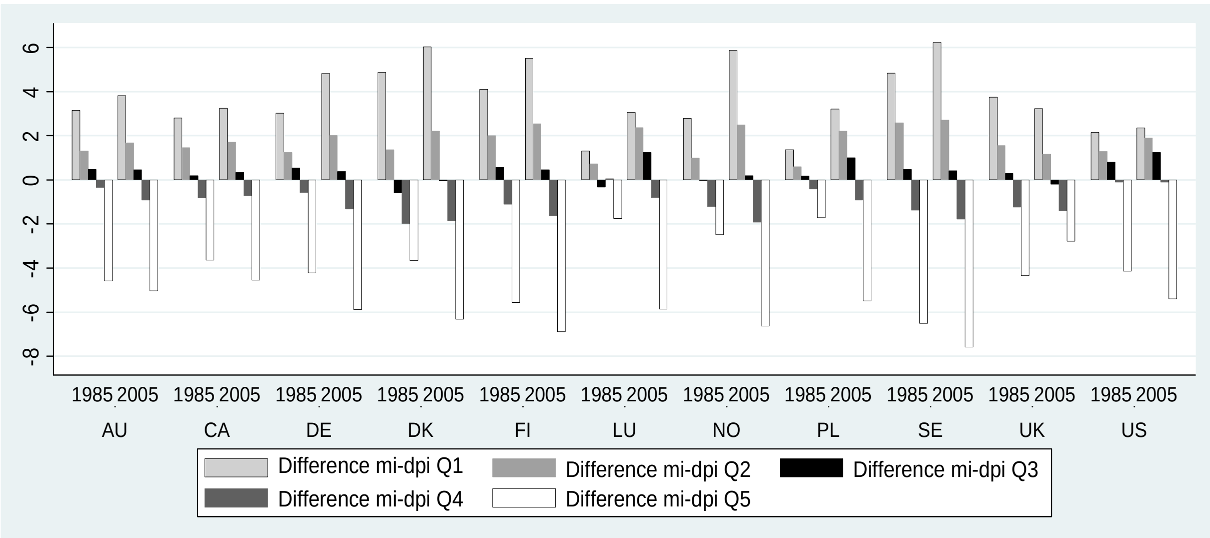
Source: LIS, several waves, own calculation.

Figure 3: Quintile shares in disposable income (countries ordered by size of Q3)



Source: LIS, own calculations.

Figure 4: Effects of public redistribution by quintile and its change



Source: LIS, own calculations.
Note: Countries are in alphabetic order. Some countries do not appear because they have no data for the waves 1985 and/or 2005 (IE, FR, NL, ES, IT). Switzerland is not included because the first observation is 1990.

Figure 5: Change of income position of the middle class and welfare state.

Source: LIS micro-data, own calculations.
Note: The ratio Q5/3 indicates the relation between the income share the topmost and the middle quintils receive. A figure of 1,6 for Sweden 1985 (refering to disposable income) means that the top quintil has 1,6 times of the total income as the middle quintile. Countries are ordered by the size of the Q5/3 ratio. The reasons why not all of the 19 countries are included, see note in figure 4.

Appendix

Table A1: Data sets of the LIS with both market income and disposable income by regimes).

	Wave I	Wave II	Wave III	Wave IV	Wave V	Wave VI
Liberal						
AU (Australia)	1981	1985	1989	1995	2001	2003
CA	(1971) 1981	1987	1991	1994/97	1998/00	2004
UK	(1974) 1979	1986	1991	1994/95	1999	2004
US	(1974)1979	1986	1991	1994/97	2000	2004
IE	-	1987	-	1995	*2000*	-
Social democ:						
DK	-	1987	1992	1995	2000	2004
FI	-	1987	1991	1995	2000	2004
NO	1979	1986	1991	1995	2000	2004
SE	1981 (67/75)	1987	1992	1995	2000	2005
Co. market ec.						
DE	1981 (1973)	1983/84	1989	1994	2000	2004
CH	1982	-	1992	-	2000/02	2004
NL	-	1983/87	1991	1994	1999	-
AT	-	*1987*	-	*1995*	*2000*	2004
BE	-	1985	1992	*1995*	*2000*	*2004*
FR	-	-	1989	1994	*2000*	-
LU	-	1985	1991	1997	*2000*	2004
IT	-	1986	1991	1995	*2000*	*2004*
PL	-	1986	1992	1995	1999	2004
ES	-	-	1990	1995	*2000*	*2004*

Source: LIS Net Income datasets. http://www.lisproject.org
Remark: Datasets only covering disposable household income are printed in italics.

Table A2: Quintile share in total income by market- and disposable income and its change between 1985 and 2005.

country	1985		2005		difference 1985 - 2005	
AT	market inc.	disp. inc.	market ink.	disp. inc.	market inc.	disp. inc.
Q1	-	11.40	5.25	9.31	-	- 2.08
Q2	-	15.13	12.21	14.26	-	- .87
Q3	-	18.91	17.30	17.88	-	- 1.02
Q4	-	22.78	23.73	22.42	-	- .36
Q5	-	31.79	41.52	36.12	-	+ 4.33
DE						
Q1	6.83	9.84	4.48	9.31	-2.35	- .54
Q2	13.23	14.46	12.38	14.40	- .85	- .05
Q3	17.56	18.10	17.51	17.88	- .05	- .21
Q4	22.94	22.37	23.73	22.40	+.79	- .03
Q5	39.44	35.22	41.90	36.01	+2.46	+ .79
LU						
Q1	9.63	10.9	6.07	9.13	- 3.56	- 1.82
Q2	14.02	14.75	11.77	14.14	- 2.25	- .61
Q3	18.66	18.32	16.81	18.05	- 1.85	- .26
Q4	22.46	22.50	23.36	22.56	+.90	+.05
Q5	35.24	33.49	41.98	36.12	+6.74	+2.63
DK						
Q1	5.45	10.33	4.82	10.84	- .64	+ .52
Q2	14.47	15.84	13.73	15.94	- .74	+ .09
Q3	19.57	18.97	19.21	19.15	- .36	+ .19
Q4	24.34	22.37	24.54	22.67	+.20	+ .30
Q5	36.17	32.50	37.71	31.40	+1.54	- 1.10
FI						
Q1	7.17	11.28	4.79	10.31	-2.38	- .97
Q2	14.16	16.16	12.53	15.08	-1.63	- 1.10
Q3	18.81	19.38	17.95	18.41	- .86	- 1.0
Q4	23.84	22.74	24.1	22.42	+.22	- .32
Q5	36.0	30.45	40.67	33.78	+4.65	+3.34
NO						
Q1	8.23	11.01	3.9	9.78	- 4.33	- 1.23
Q2	14.64	15.62	12.61	15.10	- 2.02	- .51
Q3	18.7	18.66	18.16	18.34	- .55	- .32
Q4	23.72	22.50	23.93	22.01	+.21	- .49
Q5	34.71	32.21	41.40	34.77	+6.69	+2.56
SE						
Q1	5.95	10.78	4.38	10.61	- 1.57	- .17
Q2	13.92	16.51	12.82	15.53	- 1.10	- .98
Q3	18.0	19.45	18.38	18.80	- .60	- .65
Q4	24.25	22.88	24.3	22.51	- .04	- .37
Q5	36.9	30.38	40.12	32.54	+3.22	+2.17

Table continued

country	1985		2005			
UK	market inc.	disp. inc.	market inc.	disp. inc.	difference 1985 - 2005	
Q1	4.96	8.71	3.87	7.12	- 1.07	- 1.59
Q2	12.35	13.91	10.15	11.31	- 2.20	- 2.6
Q3	17.76	18.05	15.17	14.98	- 2.56	- 3.07
Q4	24.51	23.27	21.43	20.02	- 3.09	- 3.25
Q5	40.42	36.07	49.37	46.57	+8.95	+10.50
US						
Q1	4.77	6.93	4.11	6.47	- .67	- .17
Q2	11.73	13.02	10.0	11.93	- 1.71	- .98
Q3	17.1	17.86	15.54	16.78	- 1.55	- .65
Q4	24.2	24.1	22.91	22.8	- 1.30	- .37
Q5	42.2	38.07	47.42	42.03	+5.22	+2.17
AU						
Q1	5.81	8.95	5.04	8.87	- .76	-.09
Q2	12.91	14.23	11.96	13.64	- .95	-.59
Q3	17.78	18.26	17.54	18.00	-. 24	-.27
Q4	23.83	23.48	24.29	23.37	+ .46	-.11
Q5	39.67	35.10	41.17	36.13	+1.50	+1.06
CA						
Q1	5.90	8.7	4.47	7.71	- 1.43	- .099
Q2	12.84	14.3	11.40	13.1	- 1.43	- 1.20
Q3	18.10	18.26	17.25	17.59	- .82	- .67
Q4	24.00	23.18	23.80	23.06	-.20	- .11
Q5	39.20	35.56	43.1	38.54	+3.88	+2.98
CH	1990					
Q1	7.84	9.28	7.39	9.75	- .46	+.48
Q2	13.62	14.07	13.71	14.55	+.10	+.48
Q3	17.35	17.63	18.16	18.12	+.81	+.48
Q4	22.60	22.33	23.67	22.93	+1.07	+.60
Q5	38.59	36.69	37.07	34.65	- 1.52	-2.05
PL						
Q1	7.65	9.01	4.5	7.71	- 3.15	- 1.3
Q2	13.72	14.32	10.46	12.66	- 3.25	- 1.66
Q3	18.28	18.46	15.88	16.87	- 2.4	- 1.59
Q4	23.65	23.22	23.19	22.28	- .45	- .94
Q5	36.71	35.0	45.97	40.47	+9.27	+5.47

Source: LIS Micro-data. Own calculation.

Note: Countries are omitted when the waves 1985 and/or 2005 are missing (IE, FR, NL, ES, IT).