

The Welfare State and Redistribution

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Because it taxes and spends, the welfare state is by definition redistributive, but this does not automatically entail that it creates more equality. A quick historical glance at social reform will dispel of any notion that the welfare state was pursued for egalitarian reasons. Its foundations were typically laid by conservative reformers who, like Bismarck, sought primarily to reproduce, rather than to alter, prevailing social hierarchies. When the opportunity arose, socialists pushed for social policies that would better the conditions of workers, eliminate poverty, and equalize opportunities.¹

Following Barr (2001), the welfare state is mainly a collective piggy bank designed to insure against social risks and therefore not a vehicle for equality. It is also Robin Hood to the extent that it aims to ameliorate need and poverty or, more generally, reduce welfare disparities. The balance between the two functions will in great measure dictate the equalizing impact of redistribution.

In order to assess how welfare states redistribute it is useful to distinguish between horizontal, vertical and between-group redistribution (Hills, 2004:185). Social insurance is primarily designed for horizontal redistribution, seeking to reallocate income across the life cycle. Rowntree's (1901) pioneering work on poverty emphasized the horizontal dimension: across the life cycle citizens face alternate periods of want and plenty. His conclusions, however, suggested the need for vertical redistribution. The latter represents the Robin Hood role, taking from the rich to give to the poor. The degree of vertical redistribution is given by the progressivity of the tax system, and by the degree to which social expenditures go disproportionately to the least well-off. Social assistance is the classical example. The distinction should not be taken too literally. Social insurance commonly includes a Robin Hood element by granting benefit supplements to low income citizens. Examples of inter-group redistribution are family benefits (transfers from the childless to those with children) and national health care (which implicitly redistributes between the healthy and the ill).²

These dimensions all focus on how welfare states alter the market-based income distribution; that is, the difference between pre- and post-redistribution. Yet, no country with a welfare state has a true original income distribution because policies affect directly and indirectly its shape. They do so in two major ways. Firstly, the welfare state artificially 'creates' substantial inequality because it produces large populations with zero market incomes, such as pensioners or women on maternity leave. Likewise, social protection and tax systems may affect work incentives and, hence, earnings (Atkinson, 1995; Milanovic, 2000; Beramendi, 2001). To really estimate redistribution we would need to invent a counter-factual 'virgin' distribution that was unaffected by social policy altogether. In the absence of pensions, would the elderly continue to work and thus receive market income?

¹ See Rimlinger (1971), Baldwin (1990) and Esping-Andersen (1990) for general historical and comparative treatments of welfare state evolution.

² Measured on a lifetime income basis, Hills (2004:197) suggests that two-thirds of British welfare state redistribution is horizontal and only one-third is Robin Hood redistribution.

Secondly, welfare states provide resources to citizens that affect their earnings potential. These derive primarily from services, such as education, health care, training programmes or support to working mothers. In this regard the welfare state plays an important social investment function and the design of such policies will dictate inequalities in peoples' lifetime earnings power. Policies that ensure a more equal opportunity structure will inevitably also diminish inequalities in the distribution of market income. Put differently, there are powerful countervailing welfare state effects that influence market inequalities.

The standard approach in empirical research is to use the 'original' income distribution as benchmark in order to calculate the degree of equalization. In light of the counterfactual problem this must yield a degree of distortion that will vary very much across countries, all dependent on the nature of the welfare state. Those that encourage mass early retirement or that suffer from high unemployment will create more zero earnings; so will those that provide generous maternity and parental leaves. In contrast, welfare states that maximize employment and narrow earnings differentials will help establish a more equal 'original' income distribution (Kenworthy, 2004). There are additional reasons why a simple pre-post redistribution approach is ill-suited to capture what we really wish to identify. The provision of social services can have major effects on the distribution of well-being but such goes unmeasured in income statistics. Since social insurance primarily serves to smooth incomes across the life cycle, its relevant redistributive effects must be related to income on a lifetime basis. And if we wish to identify the impact of 'Robin Hood redistribution' it would seem more relevant to focus on poverty alleviation.

All this considered, we need to be especially attentive to three basic issues. One, welfare states embrace distinct redistributive principles, some of which may promote more equality of outcomes or of opportunities, while others may actually work in the opposite direction. Pension systems illustrate this well. Most rich nations combine three pension pillars: earnings-related insurance, tax-subsidized private pension plans, and a general revenue-financed basic pension guarantee. The latter is likely to be highly redistributive in favor of low income retirees whereas tax deductions for private schemes favor the rich. Insurance schemes are commonly financed via a proportional levy on the wage bill. This would suggest a relatively neutral distributional outcome were it not for the fact that high income earners typically live substantially longer and therefore end up receiving a disproportionate slice of the pension budget. Two, the income data that we routinely use pick up only a part of the overall welfare state effect. And, three, the most interesting impact of welfare states may in fact be their influence on the 'virgin' primary distribution.

Theories of welfare state redistribution

Most empirical research is guided by one of three theoretical perspectives. Economic theories see the welfare state as replacing insurance markets to compensate for market and information failures (Barr, 1998; 2003). Government may be a more efficient insurer of risks, in particular under conditions of strong information asymmetries, credit constraints and adverse selection. A recent literature adds a global economy angle to

this, arguing that heightened economic vulnerability in global markets intensifies social risks. This should explain why welfare states are exceptionally large in very open economies (Rodrik, 1998; Iversen and Cusack, 2000; Garrett, 1998).

If the welfare state is primarily an insurer, its role in creating equality would appear irrelevant. But there are three kinds of social risks, each with its unique redistributive logic: *life course risks*, *inter-generational risks*, and *class risks* (Esping-Andersen, 1999:40-43). Pooling life cycle risks, like old age infirmity, implies primarily horizontal redistribution across the life course – Barr’s ‘piggy bank’. But horizontal redistribution is obviously inappropriate for risks, such as child poverty, that occur early in the life course. These will require vertical redistribution. Inter-generational risks are related to social inheritance in the sense that social origins influence life chances. The relevant policies here are related to equal opportunity measures. As is examined in Chapter 22, the prevailing level of inequality in the parental generation helps dictate differences in parental investment in their children’s life chances. If so, there is also a strong case for vertical redistribution. Class risks refer to those that concentrate in distinct social groups: miners are more prone to work injury than college professors; the unskilled are more vulnerable to low earnings and unemployment; lone mothers are over-represented among the poor. Class risks have given rise to a plethora of policy responses including targeted support to the vulnerable, corporative risk pooling such as distinct insurance plans for high-risk clienteles (like miners’ insurance), or universal pooling of the entire population regardless of its risk profile (like universal child benefits, or the Scandinavian tradition of a ‘peoples’ pension). Risk pooling can produce a complex combination of redistributive logics and cannot, as economic theory often assumes, be equated with horizontal redistribution.

The Robin Hood theory typically assumes that targeting benefits to the neediest will yield the strongest possible redistributive result. This has been challenged by the ‘paradox of redistribution’ thesis (Korpi and Palme, 1998). The argument is that narrowly targeted policies are typically ungenerous and potentially stigmatizing due to lack of broad electoral support. In contrast, universal benefits marshal broad citizen support and will, hence, offer more generous benefits that additionally will reach all the needy with greater certainty. In this perspective we should expect that pro-targeting welfare states, like the American, produce less income equalization than universalistic ones.

Political theories offer a second source of guidance.³ One tradition links redistribution to the legislative power of left parties. The straightforward argument is that left parties represent the less well-off, and if they gain sufficient political power they will redistribute in their favour. There is substantial, if not overwhelmingly strong, evidence to support this thesis (Korpi, 1983; Huber and Stephens, 2001). Another tradition applies median voter models (Meltzer and Richard, 1981; Perotti, 1996; Milanovic, 2000; Moene and Wallerstein, 2001; 2003). In this framework, high levels of earnings inequality fuels demand for redistribution, in particular if median earnings fall far below the mean. Empirical analyses fail to provide clear support for the thesis. Some, like Milanovic (2000) conclude positively while others, like Moffitt et.al. (1998), argue that the more unequal is the primary income distribution, the less support for the poor.

³ The political theories are examined in more detail in Chapter 24.

Moene and Wallerstein (2003) offer an explanation for these ambiguous findings. They show that the theory appears irrelevant for large items such as pensions and health care, while some, like unemployment insurance, do seem to respond to levels of pre-redistribution inequality – but not the way predicted by theory. They find that spending is more generous in nations with more egalitarian distributions. Most interestingly, they show that rising inequality generates a double, counteracting effect: on one hand, increasing demand for redistribution and, on the other hand, rising demand for (non-redistributive) insurance.

Thirdly, much research has been influenced by derivatives of Wagner's Law, according to which public expenditure will grow disproportionately faster than GDP growth once we reach a certain stage of development. The upshot is that welfare state expansion – and thus more redistribution – is intrinsic to advanced economies. Wilensky (1975) is the classic example in this tradition.

The origins of welfare states can be dated back to the late 1800s, but social expenditure grew initially very slowly. This is understandable since, in most cases, population coverage was incomplete and entitlements were modest. And once introduced, the big spending items such as pensions required very long maturation periods. Accordingly, social expenditures in Europe rarely exceeded 3 percent of GDP before World War Two. The concept of the welfare state, indeed, emerged only in the post-war decades. By 1960, the median level of social outlays in the affluent democracies had risen to 10 percent of GDP. The real take-off occurred in the 1970s, following a major social reform wave in terms of benefit generosity and population inclusion. By 1990, the median level of social expenditures had risen to 24 percent of GDP, but this hides substantial dispersion, ranging from 15 percent in the US to more than 30 percent in Scandinavia. With the exception of laggard countries, particularly in Southern Europe, spending volumes have grown little since.⁴

Since income inequality declined in tandem with welfare state consolidation, and since there is a fairly strong cross-national correlation between welfare state size and equality, the 'size-redistribution thesis' appears credible. Early comparative research generally assumed direct causality (Cutright, 1967; Sawyer, 1976; Stark, 1977; Ringen, 1987). In truth neither their data, nor their methodology, permitted such causal argumentation. As will be explained below, truly comparable data on income distributions (and on social spending) emerged only from the 1980s onwards. This does not mean that the thesis should be rejected. Smeeding (1997), using high quality data, finds a strong association between levels of spending and degrees of poverty reduction.

The size-redistribution thesis has been questioned on many grounds. Firstly, the historical pattern appears very non-linear. Social spending trends combine periods of relative stagnation with sudden leaps and bounds. In the past decades, social spending has been stagnant notwithstanding sustained economic growth. Secondly, some argue that welfare state growth may actually imply diminished redistribution. If large welfare

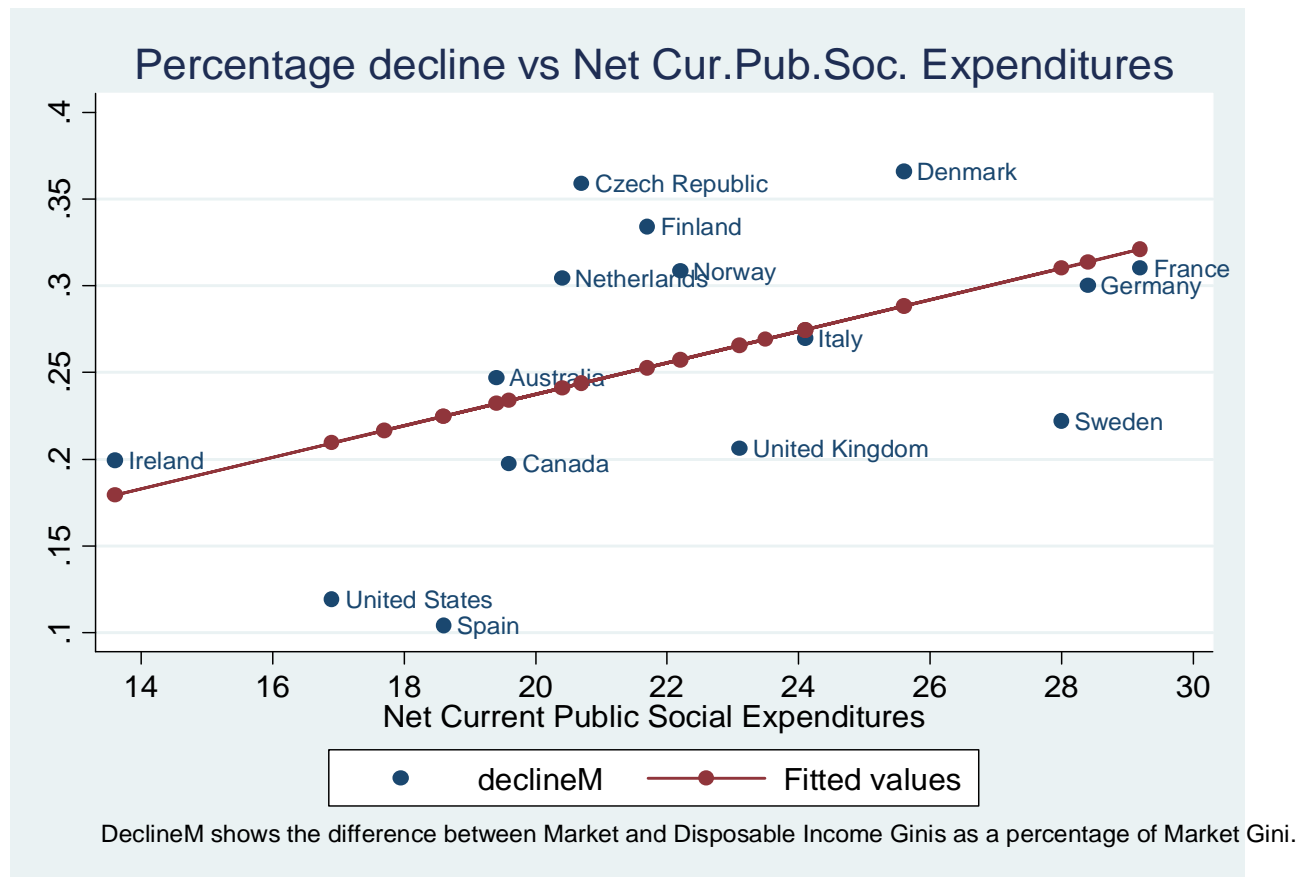
⁴ For an overview of historical trends, see Lindert (2004). By convention, social spending includes government income support to individuals (pensions, unemployment and sickness benefits, family allowances, social assistance, and the like) and social services such as health care and family services. Education is usually not regarded as social policy, and active labor market programs are typically classified as labor market spending. The concept of the welfare state, however, usually encompasses all such programmes.

states imply increasingly universal coverage, the middle classes will become the principal beneficiaries (LeGrand, 1982; Tullock, 1983; Goodin and LeGrand, 1987; Pampel and Williamson, 1989). Le Grand (1982:3) asserted boldly that “almost all public expenditure on the social services benefits the better off to a greater extent than the poor”.

A major source of erroneous inference lies in the conventional use of *gross* spending volumes. This creates distortion because, firstly, gross figures do not adjust for the taxation of benefits that then flow back into the government treasury. Countries differ hugely in terms of how much they tax social transfer payments. Very large welfare states, as in the Nordic countries, tax back far more than the leaner spenders. The second distortion is related to tax expenditures, i.e. using tax deductions to subsidize private welfare purchases. The leaner welfare states, such as the US, score high on this count. To arrive at a more meaningful measure, the OECD has calculated *net* public social expenditure (Adema and Ladaïque, 2005). With this measure, international differences in welfare state size appear far less dramatic. Sweden and the US represent the two extreme ends. In gross terms, the spending ratio between the two is 2.2; in net terms, only 1.6.

Using the most recent data, Figure 1 presents the association between *net* social expenditure and the percent reduction of income inequality (using the Gini coefficient) after taxes and income redistribution for 15 OECD countries. Some might interpret the graph as support for the size-redistribution thesis. Regression estimation suggests that a 10 percent increase in social spending would produce one percent more inequality reduction. Others, however, might stress the presence of many important outlier countries, both above and below the line, and the relatively modest explanatory power of spending (which accounts for only 25 percent of the variation). The United States, Spain and Sweden are less redistributive than one would have expected and, vice-versa, the Czech Republic, Denmark and Finland are ‘over-shooters’.

Figure 1. Welfare State Size and Income Redistribution. Percent Change in Gini, after taxes and transfers. Ca. 2000.



Source: OECD SOCX data base and LIS

We should therefore question any straightforward link between social spending and income distribution. As Esping-Andersen (1990; 1999), Palme (2006) and Moene and Wallerstein (2001; 2003), suggest, the important effects may derive from the institutional design, rather than sheer size, of welfare states.

Welfare state design and welfare regimes

Citizens obtain welfare from three basic sources: markets, family, and government. The market provides income and sells commercial welfare inputs such as child minding or medical insurance. For most people, during most of their lives, the market is undoubtedly the chief source of well-being. Families, too, play a pivotal role in welfare packaging, in part by providing services and care for kin, in part via income transfers. Income pooling in families is the norm and income transfers between the generations is substantial – in particular from the elderly to the young (Albertini et.al, 2006). To fully understand welfare *states* we need to situate them in the full context of welfare production and consumption. I term this *welfare regime*.

With some simplification, we can distinguish three distinct regimes.⁵ The Anglo-Saxon countries represent the ‘liberal’ regime, one that favors minimal public intervention

⁵ This section draws heavily on Esping-Andersen (1990; 1999).

under the assumption that the majority of citizens can obtain adequate welfare from the market. The role of government is, in part, to nurture rather than replace, market transactions and this explains why these countries favor subsidizing private welfare via tax deductions. The US is the extreme case where the value of tax expenditures for social purposes exceeds 2 percent of GDP, and where private social spending, at 9 percent of GDP, accounts for 37% of total public and private outlays (Adema and Ladaïque, 2005: Table 6).

A second hallmark of the liberal regime is its preference for targeting public benefits to the neediest, traditionally via means-testing but recent years have seen a shift towards work-conditional, negative income tax type policies. This, again, mirrors the principle that government's role should be restricted to a demonstrable inability to uphold one's own livelihood.

In line with its support for market solutions, this regime favours un-regulated labor markets under the assumption that this bolsters employment growth. But it also promotes greater labor turnover, which heightens social insecurity, and greater wage inequality which, in turn, increases the risks of poverty.

The combination of a pro-market bias and targeting should, in principle, lead to contradictory distributional outcomes. Private welfare reliance, bolstered by tax subsidies, should have a clear adverse effect on equality while we should expect that targeting in favor of the neediest sponsors equality. The latter may, however, be weakened by the 'paradox of redistribution' effect. Indeed, as the thesis would predict, social benefits to the poor is comparably ungenerous in the Anglo countries, and this helps explain why poverty remains exceptionally high, in particular among the most vulnerable such as lone mothers.

The Nordic countries represent a second, 'social-democratic', regime that is, above all, characterized by its emphasis on universal inclusion and its comprehensive definition of social entitlements. It is also one that has been vocally committed to equalize living conditions across the citizenry. For this reason, policy has deliberately sought to marginalize the role of private welfare markets and of targeted social assistance. The model is internationally unique also in its emphasis on 'de-familializing' welfare responsibilities, especially with regard to care for children and the elderly. Denmark and Sweden now boast *de facto* complete coverage both for child and elderly care. The upshot is, on one hand, a boost to female labor supply and, on the other hand, an unusually service-intensive welfare state. Excluding health care, social services now account for more than 20 percent of all social expenditure in Denmark and Sweden (compared to a 4-5 percent average for the OECD countries). Since data on income distributions do not capture the monetary value of services, we may accordingly end up with a misleading picture of these welfare states' true redistributive effects.

Yet another hallmark of the Nordic model is its unique synchronization of social and labor market policies. While labor markets are fairly regulated, both in terms of hiring and firing (with the exception of Denmark) and in terms of wage setting, social policy has played a major role in promoting maximum employment. Female employment rates are now basically similar to men's and increasingly on a full-time basis. This has potentially huge consequences for the income distribution. Female employment will promote more income equality the more it is embraced also in the bottom quintile

households. Here is one clear example where social services and family policy have an essentially invisible, yet potentially decisive, effect on the distribution of income. Active labor market policies are a second crucial instrument for minimizing unemployment. By guaranteeing generous benefits to participants, the policy gives huge incentives to participate in training, retraining and job relocation programs.

The net distributional impact of these features is difficult to predict – and measure. Since most benefits are universal, they may not have a major equalizing effect. But since they are all (except family allowances) taxed, the net outcome should be more vertical redistribution (high income retirees are taxed more heavily than their low income equivalents). And returning to the ‘paradox of redistribution’, minimal targeting should actually promote more equality of outcome.

But the Nordic regime’s service-intensive nature means also that any egalitarian outcome cannot be identified with standard income data. Take child care services. Since standards and quality are identical for children of poor and rich parents, the marginal welfare improvement is surely much larger for low income families. Or take, again, the female employment dividend of ‘mother-friendly’ policy. Its real distributive effect is once-removed. Overall, to the extent that the model delivers maximum employment, perhaps the most decisive redistribution occurs via the equalization of primary, pre-redistribution incomes. The *de facto* universality of employment should translate into exceptionally low poverty risks.

The third, and somewhat more heterogeneous, regime embraces the majority of Continental European countries, Austria, Belgium, France, Germany, Italy, the Netherlands, and Spain.⁶ These welfare states all have conservative origins. The foundations were built around social insurance, often along narrowly defined occupational distinctions. This implies that entitlements depend primarily on life-long employment which has, historically, helped cement the male-breadwinner logic of social protection. With the partial exception of Belgium and France, this regime is strongly familialistic, assuming that primary welfare responsibilities lie with family members. Policies that help reconcile motherhood and careers are relatively undeveloped. Hence, these welfare states are transfer-heavy and service-lean.

The role of private welfare is marginal, as in the Nordic countries, primarily because social insurance offers generous benefits and broad coverage of the employed population, but also due to high prices for private services – brought about by high fixed labour costs. Strong labor market regulation and high labor costs have influenced patterns of employment in several ways. Firstly, while prime age workers risk little unemployment, entry into first employment is made difficult. Youth unemployment is, except in Germany, extraordinarily high. Secondly, the lack of support for working mothers means that female employment has remained low, especially among less educated women. And thirdly, early retirement has been used intensely as a vehicle for

⁶ It has been argued that the Mediterranean countries constitute a special model. The specificity of these countries is rather minor and mainly related to unusually undeveloped social assistance schemes and very strong familialism. The Netherlands is an ambiguous case since it combines features, such as a large private sector role, that are similar to the Anglo regime, but its welfare state design lies rather close to the other Continental countries. For a discussion, see Esping-Andersen (1999). I omit here Greece and Portugal.

clearing the labor market of older workers, thus lowering overall employment rates and raising pension expenditure.

Its redistributive profile is therefore likely to diverge from any of the other two. The dominance of insurance implies an accent on horizontal redistribution. Low employment rates, particularly among older workers, imply however that redistribution will appear strong, the reason being that extensive early retirement helps bloat the number of zero-earners whose main income derives from pensions. Low female participation, especially within the lower deciles of the income distribution, implies also greater household vulnerability – which, of course, is partially offset by strong employment protection. But low female employment means that groups like lone mothers are vulnerable.

There is no clear connection between these institutional features and welfare state size. See Table 1. The liberal regime is, unsurprisingly, a low spender. But notwithstanding their institutional differences, the Nordic and Continental regimes basically converge in terms of spending. Regime distinctions are more accentuated when we examine the role of private welfare, social servicing intensity, and degree of targeting (here excluding transfers to the elderly). We can also capture differences by examining the generosity and distribution of transfer incomes to households – especially among non-retirees. In the Nordic countries, average transfer income (for active age households) equals 18 percent of median gross income, compared to 10 percent in Germany and 14 percent in Britain. The targeted profile of Britain’s welfare state emerges clearly when we compare the ratio of transfer income in the lowest and highest income quintile (4.6:1). The Swedish ratio, in comparison, is 2.5:1 (Fritzell, 2000).⁷

Table 1. Expenditure Profiles in Three Welfare regimes.

	Public social spending (% GDP) ¹⁾	Private as % Total Social spending	Non-health services as % of Total Public Spending	Targeting: % of transfers to bottom Quintile 2)
Nordic	25	5	18	34
Anglo	19	19	4	43
Continental Europe	26	8	5	30

Source: calculations from Adema and Ladaique (2005: Table 6) and from Forster and d’Ercole (2005).
1) Data refer to *net* social spending. 2) excludes retired households.

⁷ Maitre et.al. (2005: Table 2), explicitly addressing welfare regime effects, conduct a similar analysis for all households, including the elderly, and find pretty much the same picture. The bottom:top transfer ratio is 5:1 in Denmark and 20:1 in the UK. But as also Fritzell’s data show, there are no marked differences in terms of targeting between the Nordic and Continental European regimes – except that the average value of transfers is substantially higher in the former.

Measuring welfare state redistribution

We cannot compare income distributions before and after the advent of the welfare state. One can examine how changes in policy (say, a pension reform) influenced the income distribution but then, of course, we are not measuring total welfare state effects. Almost all research seeks therefore recourse to year-specific cross-national comparisons. The measurement of welfare state redistribution faces severe obstacles, both in terms of getting the right data and in terms of methodology.

The early attempts to compare across countries, such as Sawyer (1976) and Stark (1977), were severely hampered by the incomparability of national income data. This all changed thanks to the efforts of the Luxembourg Income Study (LIS) and later also the OECD, to harmonize national income surveys (Mitchell, 1991; Atkinson et al., 1995; Forster, 2000). The LIS data allowed, from the 1980s onward, researchers to obtain truly comparable estimates of income distributions (Atkinson et al., 1995). The lion's share of comparative research over the past decades uses the LIS data.

But drawbacks remain. The data for any given country may represent an atypical year, due for example, to external economic shocks. It also means that we cannot distinguish whether a household's reported income reflects a transitory or stable situation. The mix of transient and persistent poverty may differ across countries. A second major drawback is that we have generally no information on the distribution of public service consumption which, we know, varies hugely across welfare states.

The methodological obstacles are no less severe. A first consideration has to do with how we measure distributions.⁸ Under the assumption that members of a household pool their income, the logical unit to study is the household.⁹ In the literature we find three prevailing approaches: a summary measure, such as the Gini coefficient, a decile approach where inequalities are captured via ratios (such as the top-to-bottom income decile), and a poverty-rate approach. It is broadly recognized that income alone may not give us an adequate picture of well-being and many argue therefore in favor of a more comprehensive, multi-dimensional measure of living conditions and household resources (Erikson and Aaberg, 1985; Nolan and Whelan, 2007). This, however, creates greater obstacles for obtaining internationally comparable data.

A huge amount of research has focused on welfare states' effectiveness in reducing poverty and this implies the need to define a meaningful poverty line. One hotly debated issue is whether to adopt a relative or 'absolute' measure. The reason that the vast majority prefer the former is to capture the meaning of being poor within the society one lives in. An American family with a \$10,000 annual income might appear very rich to a Senegalese, but will have severe difficulties making ends meet in the US.¹⁰ A second issue is where to draw the line. The latter can have massive repercussions, all

⁸ For an overview, see Jesuit and Smeeding (2002).

⁹ Assuming income pooling does not mean equal sharing among the members of the household. See Chapter 16 for a discussion.

¹⁰ There is surely a case to be made for an 'absolute' measure to the extent that someone below the poverty line in one country may be, consumption-wise, far better off than his/her equivalent in another country. To capture this possibility some researchers have made PPP adjustments to income data (Osberg et al., 2004).

depending on where the poor are situated. A good example is Britain where we frequently find very high poverty rates when the line is drawn at 50 percent of median income, but if we draw the line at 40 percent, poverty rates fall abruptly. The reason is that British public income support is typically pegged at a level of support that lies below the 50-percent line, but above the 40-percent line. Drawing the line will, in all cases, provoke some artificiality of assessment. There may, for example, be a large population that falls just immediately below the line. They would be classified as poor whereas those with just a few additional Euros would not. The standard approach that has been adopted in most studies is the 50-percent of median line, although the EU has officially chosen a 60-percent line. Studies that wish to capture the 'poverty gap', i.e. how far below the line the poor find themselves, calculate either a gap measure or use several poverty lines (Mitchell, 1991; Kenworthy, 1999).

The prevailing consensus is that the income data must be weighted by the number of members in the household. A single person and a family of four with identical incomes will obviously experience different welfare levels simply because of the number that needs to be fed and clothed. Following Atkinson et.al., (1995), most studies adopt the square-root scale according to which the adjustment equals the square root of a household's size.¹¹

A second methodological challenge lies in the difficulty of distinguishing between flux and stability. Cross sectional data confound the two and this means that short-lived, transitory low (or high) income is given the same importance as persistent levels. This problem is most acute in studies that focus on poverty. We know that poverty is short-lived among a significant share of poor households (Duncan et.al., 1993; Bradbury et.al., 2001; Aaberge et.al, 2002; Burkhauser and Poupore, 1997; Gangl, 2005; Jarvis and Jenkins, 1998). Studies that use permanent income, averaged over 5 or more years, find substantially less inequality than those that measure just one year. Those that are comparative find, additionally, that national differences are less accentuated than when we measure poverty rates in any given year (Duncan et.al, 1993; Bradbury et.al., 2001). Our ability to distinguish between transient as opposed to persistent or recurrent poverty is vital for understanding the effectiveness of welfare state guarantees. Although country differences are less marked, the evidence we have does suggest less persistency – especially among families with children -- in strong welfare states, such as the Nordic. Whelan and Maitre (2007: Table 6), using a more comprehensive measure of vulnerability, find that the share of the poor who are persistently vulnerable is substantially lower in Denmark than elsewhere. This they attribute mainly to the Danish active labor market policies that are explicitly designed to minimize long-term joblessness.

Few comparative studies have attempted to tackle the role of services. Most research includes only a sampling of services (typically education and health) and assign a per capita value (based on the cost to government of the service) across households (Smeeding et.al., 1993; Smeeding and Rainwater, 2002; Osberg et.al., 2004; Garfinkel et.al, 2006). This approach may be unproblematic in the case of universally consumed services, such as elementary schools, but is obviously inadequate for services that have different take-up profiles across society. We know from research on inequalities in health care that the greater is the reliance on private financing, the more regressive is the

¹¹ Buhmann et.al. (1988) present a detailed overview of alternative equivalence scales.

effect. But even in countries with universal health care there exist strong social gradients in health care consumption (Wagstaff and van Doorslaer, 2000). There are very few comparative studies that estimate the global service effect. The OECD's recent effort is probably the only that exists (Marical et.al., 2006).¹² An additional advantage of the OECD study is that the distribution of services has been estimated via micro data on reported use by household members.

The final and surely most intractable methodological problem has to do with the inherent endogeneity between primary incomes and the welfare state. Some studies suggest that welfare state efforts to equalize opportunities, reconcile motherhood and careers, maximize employment or homogenize early childhood development have decisive effects on equalizing lifetime earnings and career prospects and on reducing poverty (Kenworthy, 2004; Carneiro and Heckman, 2004; Esping-Andersen, 1999; 2007). These may in fact overshadow the role of direct redistribution via taxes and income transfers. But on this front, empirical research has made very little progress, basically because the counterfactual is virtually impossible to define.

The distortion is obviously greatest when we measure redistribution across the entire population. By focusing on particular population or age segments, we can control for some of the bias. To avoid the massive zero-earner retiree effect one might, for example, confine the study to households with heads in the active ages or even more narrowly defined population segments. An alternative, but rarely used, approach is to use micro-simulation techniques to test for the counterfactuals.¹³ Rainwater and Smeeding (2003: 88 and 116), for example, simulate what child poverty rates would have been in other countries if their income support system (and demographic mix) were identical to the American.

What does Empirical Research Conclude?

There is, regardless of the many methodological problems, no doubt that welfare states redistribute in an egalitarian direction. Post-fisc Gini coefficients, decile ratios and poverty rates are systematically lower than for primary income distributions. What is also clear is that welfare states do it differently and vary substantially in their degree of equalization. A common characteristic, however, is that the lion's share of redistribution (typically around 2/3rds) is accounted for by spending rather than taxation (Mitchell, 1991; Mahler and Jesuit, 2006; Immervoll et.al., 2005). As we should expect, the relative impact of taxation falls as the volume of spending rises. Moreover, social insurance contributions have almost no redistributive effect (Immervoll et.al., 2005)

¹² Harding et.al. (2006) offer a very comprehensive examination, but the study is limited to an Australian-UK comparison. They conclude that services are less redistributive than income transfers. But they are clearly redistributive (more so in Australia than in the UK). A study by the Economic Council of Denmark suggests that the overall effect of services is egalitarian. Taxation and cash transfers account for about 2/3rds, and services for about one-third of the total inequality reduction effect of government spending (Okonomisk Raad, 2001). See also Rele (2007) for the Netherlands.

¹³ See, for example, Immervoll et.al. (2005) and Dang et.al. (2006), both of which utilize the Euromod simulation model. Bergh (2005) attempts to identify the bias via theoretical simulation. Of particular interest is his attempt to identify distinctly different kinds of bias that are related to the design of countries' social protection system. His findings suggest that the bias is greater in countries with a prevalence of flat-rate benefits.

A first step towards ascertaining welfare state effects would be to compare the level of nations' income inequality (measured, for example, by the Gini coefficient) between 'original' market incomes and post-redistribution, disposable incomes. Few studies actually adopt this approach due primarily to the huge problem of zero market income populations among the elderly. Those that do find routinely that the large welfare states are more redistributive (Forster, 2000). Following the welfare regime approach, it is clear that the Anglo-Saxon group is systematically far less redistributive than the other two which, in turn, appear surprisingly similar within such aggregate comparisons. But when one excludes the elderly population, the convergence disappears and the Continental European welfare states begin to look more 'liberal'. This suggests an important difference in welfare state design. The Continental European countries' tax-transfer system is far more pensioner-biased, as is also clear in Dang et.al. (2006). Such aggregate redistribution data confirm in another way the distinctiveness of welfare regimes since intra-regime similarities in redistribution are overall surprisingly strong – the only real exception being Italy which looks more similar to the Anglo-Saxon group.

A major shortcoming of cross-national comparisons of this type is that they provide only snapshots and fail, accordingly, to capture how welfare states respond to changes in economic inequality. Market incomes have, in the majority of OECD countries, experienced a strong inegalitarian trend over the past decades (Atkinson, 2003). In some countries, like the UK and the US, the inegalitarian tide has been quite dramatic. This raises the question as to the welfare state's ability to stem, or even roll-back, the tide via an added redistributive effort. Research, so far, suggests that, in most OECD countries the jump in market inequalities has not been paralleled by a similar jump for disposable incomes (Esping-Andersen, 2007). 'Stemming the tide' should provide a revealing indicator of a welfare state's commitment to equality. Kenworthy and Pontusson's (2005: Figure 7) data suggest that the UK and the US have done least to stem the tide, whereas Germany excels in the other direction. The Nordic countries have increased redistribution in perfect tandem with rising inequality.

The Impact of Welfare State Services

As noted, the OECD provides one of the very few attempts to assess the redistributive impact of social services across a broad number of countries.¹⁴ Table 2 presents data on the level of public service expenditure (as a percent of disposable income) in the first column. This provides an idea of the welfare state's servicing intensity. The second column shows the percent reduction of *post-tax and transfer* income inequality attributable to services, measured with the Gini coefficient. The take-up of health and education services is, with very few exceptions, practically universal. What really distinguishes welfare regimes is the 'other' category, such as family services or elderly care. As noted, such services play a central role in the Nordic welfare states' pursuit of equality. The third column, as in the second, assesses their redistributive effect having already considered that of taxes and income transfers.

To obtain an idea of how much they matter for total welfare state redistribution, non-health and education services account for 20 percent of the total monetary-plus-service

¹⁴ The reader should be warned that the OECD estimates are mainly derived from imputed reciprocity (for details, see Marical et.al., 2006). The data refer to year 2000 and include health, education (all levels), social housing and other services (such as old age residencies).

effect in the Nordic regime, 15 percent in the Anglo-Saxon, and only 8 percent in the Continental European.¹⁵

Table 2. The Impact of Services on Household Inequality Reduction.

	Spending on Services (% disposable income)	Percent inequality reduction of disposable income	Percent reduction excluding health and education
Denmark	37	41	18
Finland	27	28	8
Norway	34	36	16
Sweden	40	42	21
Regime Mean	35	37	16
Australia	28	30	7
Canada	26	21	3
Ireland	23	23	3
N. Zealand	25	24	3
UK	20	21	3
US	22	22	2
Regime Mean	24	24	4
Austria	26	24	0
France	33	30	7
Germany	28	26	4
Italy	25	24	0
Netherlands	20	20	4
Spain	23	22	0
Regime Mean	26	24	3

Source: recalculations from Marical et.al. (2006: Table A9)

In the case of services, the association between welfare state size and redistribution seems to disappear altogether. Both in terms of spending and redistributive incidence, the Anglo-Saxon and Continental European regimes look very similar. Indeed, the latter is exceptionally service lean beyond the conventional health and education services and, unsurprisingly, the redistribute effect borders on zero. The Nordic regime (with Finland as an exception) clearly stands out, both in terms of the redistributive impact of all

¹⁵ The tax and transfer effect of redistribution, not shown, is based on the Luxemburg Income Study's Fiscal Redistribution data set.

services and especially of the 'other' category.¹⁶ In fact, when we de-compose the redistributive effect according to all the specific service categories, the 'other services' tends to be the single most redistributive (and education the least) in the Nordic countries.

All told, we must conclude that services are generally redistributive in an egalitarian direction, albeit less so than are cash transfers. This, once again, leads us to seriously question the thesis of Le Grand (1982). Since their redistributive effect also differs so strongly between countries it should be evident that redistribution studies based exclusively on money incomes will provide a very incomplete and somewhat distorted picture of how much equality welfare states create.

Additional confirmation of the positive redistributive effect of services comes from Bergh's (2005) study of how much welfare states may be affecting the primary distribution of incomes. He concludes, on the basis of OLS regressions, that spending on lower levels of education increase equality to the extent that it diminishes human capital differentials. Spending on higher education has the opposite effect. This is very consistent with research that focuses specifically on human capital policy (Carneiro and Heckman, 2003; Blanden et.al., 2004; Esping-Andersen, 2007b). What is particularly interesting in this regard is that such services undoubtedly yield a double egalitarian effect: they influence market-based incomes and government redistribution, both in a positive direction.

Welfare States and Poverty

Poverty reduction is arguably the single most relevant measure of welfare state redistribution and, unsurprisingly, it has become the favoured approach in empirical research. Theoretically, it provides a good test of the Rawlsian maximin principle of justice, namely that any redistribution should be to the greatest benefit of the worst off. It also speaks most directly to vertical, Robin Hood-redistribution. For two reasons, research has especially centered on child poverty. One is that poverty in childhood is known to have seriously adverse consequences for later outcomes such as schooling, health and social integration (Duncan and Brooks-Gunn, 1997; Vleminckx and Smeeding, 2001). A welfare state's investment in children's well-being is a potentially very powerful tool for promoting greater equality of opportunities (Esping-Andersen, 2007b).

Virtually all studies conclude similarly that poverty reduction, in particular among families with children, is closely associated with levels of social expenditure. The Nordic countries are typically the most redistributive while the Anglo Saxon (especially the US) are the least (McFate et.al., 1995; Jantti and Danziger, 2000; Bradbury and Jantti, 2001; Smeeding, 2005a and 2005b). Smeeding (2005a: Figure 1) shows a correlation of .6 between levels of cash social spending and poverty among non-elderly households. Corak (2005) shows, similarly, a strong correlation between welfare state spending on families and poverty reduction among children. See also Chapter XXX.

The country differences are in fact far more accentuated than when we use aggregate redistribution indicators like the Gini coefficient. At one extreme we find, once again,

¹⁶ Finland is in fact the only Nordic country that, similar to many Continental European countries, has pursued a cash-subsidy policy for caring of small children and dependent kin.

the US where government redistribution has only a very minor impact on child poverty and at the other extreme we find Sweden where child poverty almost disappears. In Sweden transfers account for almost 70 percent of income in poor households, compared to little more than 30 percent in the US; in the US, the primary policy vehicle is social assistance; in Sweden, targeted assistance plays a peripheral role (Rainwater and Smeeding, 2003; Smeeding, 2005b: Table 8).

Maitre et.al. (2005) adopt a welfare regime approach similar to ours and find a distinctly strong, respectively weak, redistributive incidence in the Nordic, respectively Southern European, regimes when examining poverty reduction across all households. Research that centers on child poverty suggests, however, that two Continental European welfare states (Belgium and France) perform more similarly to Scandinavia while others, especially Italy, appear more similar to the US (Rainwater and Smeeding, 2003; Smeeding, 2005). Table 3 presents data on poverty reduction in child families.

Table 3. Poverty Reduction in Families with Children. Mid-1990s. 1)

	Market Poverty	Post-redistribution poverty	Percent reduction of poverty
Denmark	30	6	80
Finland	18	3	83
Norway	29	5	83
Sweden	39	4	90
Regime Mean	29	5	84
Australia	32	17	47
Canada	29	16	45
Ireland	28	15	46
UK	39	21	46
US	31	26	16
Regime Mean	32	19	40
Belgium	31	6	81
France	40	10	75
Germany	31	12	61
Italy	37	21	43
Netherlands	25	8	68
Spain	30	13	57
Regime Mean	32	12	64

1) poverty is less than 50% of median equivalent income

Source: LIS-based estimates, from Bradbury and Jantti (2001: 83)

A remarkable feature is that pre-redistribution poverty rates vary little between countries. In terms of market incomes there is, in fact, more child poverty in Sweden than in the US. This reflects, of course, the artificiality of the 'original' income distribution. The universality of paid maternity leave in Sweden and the lack thereof in the US implies a large number of zero-earner mothers in Sweden compared to the US. The regime differences emerge when we shift attention to redistribution: a very homogeneous and strong redistributive effect in the Nordic countries. The Anglo group is, with the US as an extreme case, homogeneously very little redistributive – only half as much as the Nordic. The Continental European countries are, once again, quite heterogeneous. Italy's performance lies closer to the Anglo-Saxon regime.

Research that focuses specifically on exceptionally vulnerable families, such as lone mothers, comes generally to similar conclusions. As we might expect, the differences in welfare state performance become even more accentuated (Bradbury and Jantti, 2001; Smeeding, 2005a).

For different reasons, research on child and elderly poverty has been particularly concerned about the counter-factual problem. For child poverty, the main question is whether social transfers or support for mothers' employment constitutes the most effective means of poverty reduction. It is well-established that maternal employment reduces child poverty dramatically – typically by a factor of 3 or 4. It is also evident that child poverty is especially acute in no-work households (Esping-Andersen, 1999; Rainwater and Smeeding, 2003; Whiteford and Adema, 2007). One reason why child poverty is especially low in the Nordic countries lies in the comparatively high maternal employment rates in vulnerable families, such as lone mother households. But, of course, such high employment rates are attained in part via welfare state services, child care in particular, that we usually do not measure. Here we have additional support for Kenworthy's (2004) argument that welfare states' pursuit of maximum employment may be the really crucial strategy for equality.

Turning to elderly poverty, the counter-factual problem is multifaceted and only rarely examined in all its complexities in the comparative literature. The first and most basic problem is that welfare states typically compel the elderly to retire, thus forcing upon this population a prevalence of zero or very low market earnings. We must assume that this varies considerably across countries for a number of reasons including normal age of retirement, rules regarding pension entitlements and continued earnings, and the prevalence of wives' incomes. In studies that focus on old age poverty, the bias that is created by women's employment patterns is especially acute since the large majority of poor elderly households are composed of widows with meager pension savings. A second major problem lies in the public-private mix of retirement savings and, in particular, in how welfare states' encourage private pension plans.

Lefebvre (2007) presents a rare attempt to disentangle all such effects cross-nationally, using both Gini coefficients and poverty rates. Unsurprisingly, he finds that poverty is the norm when we examine pre-transfer poverty, ranging from 90+ percent in Austria, Belgium, and France to a low of 54 percent in Finland. More to the point, he decomposes the marginal effect of earnings, property income, private pensions and public transfers on final inequality. Earnings contribute very importantly to inequality, in particular because the highly skilled are more likely to continue working. This suggests that compulsory retirement reduces inequalities. Property income and private

pensions are, likewise, a source of inequality. Their impact is minor in most European countries, but potentially large in the US. Unfortunately, Lefebvre's (2007) study excludes the Anglo Saxon countries but finds, interestingly, that private pensions reduce inequality in France and raise inequality in Sweden. Here, once more, the explanation lies in the interface of welfare state and markets: in France, private pension schemes are actually subject to government mandating and this results in near-universal inclusion among employees; in Sweden, the (small) private pension system is a negotiated supplement to government pensions which is strongly linked to earnings. All this considered, it nonetheless remains that government transfers account for most of the post-redistribution inequality among the elderly. Lefebvre finally concludes, like Korpi and Palme (1998), that welfare states that stress targeting to the poor elderly are far less redistributive than are comprehensive (and therefore generous) pension programs (Lefebvre, 2007: 10).

Welfare states and income dynamics

One-year based snapshots of income inequality can be misleading if there are major cross-national differences in the relative salience of transitory and persistent low (or high) income. Research has broached the issue in two ways. One is to obtain measures of 'permanent income', i.e. measured over several years so as to eliminate short-term (and possibly inconsequential) fluctuations. Ideally one might estimate inequality via life-time incomes. Another is to focus on the persistency of poverty over several years, as do Whelan et.al. (2003). See also Chapter XX. Data limitations pose severe obstacles for international comparisons, however.

The few studies available on lifetime and permanent income inequality all suggest that, measured this way, overall inequality is significantly lower than when we examine one-year snapshots. We confront two problems in the study of persistency. The first, addressed by Whelan et.al. (2003) and Nolan and Marx (this volume), is that there may be a large group of recidivists who exit and then re-enter poverty over a number of years. The second is that we need to avoid confounding 'real' and 'trivial' poverty exits. Table 4 addresses the second problem by stipulating that exit must imply moving above the 60-percent poverty line. As earlier, we focus on child families and trace poverty persistency over 3+ years beginning with the first year after measured poverty.

In this case, the welfare regime distinction is not very helpful. Denmark performs particularly well in terms of avoiding long-term poverty (almost 60 percent have left poverty after the first year and by the third year there is basically no one left anymore), but this is closely matched by Germany, and the UK is not far behind. Italy and especially the US suffer from strong poverty persistency that, in both cases, can be linked to the welfare state. Their basic safety nets are comparatively very weak and ungenerous.

Table 4. The persistency of income poverty in families with children 1)

	One Year	Two years	Three+ years
Denmark	.41	.28	.03
France	.59	.42	.13
Germany	.49	.30	.09
Italy	.64	.41	.16
Spain	.60	.37	.12
UK	.49	.29	.11
US	.81	.71	.58

1) persistency has been estimated with Kaplan-Mayer survival functions. Income poverty is measured as <50% of adjusted median, and moving out of poverty is >60% of adjusted median income.

Source: ECHP, 1994-2001 for Europe and the PSID, 1993-1997, for the US.

Such data do not, of course, identify the welfare state effect directly. Studies that attempt to do so conclude that demographic effects – in particular family structural change, such as lone motherhood – provide the main explanation for persistency in the US, while employment-related factors and welfare state redistribution dominate in EU countries (OECD, 2001; Whelan et.al., 2003; Fourage and Layte, 2005).

Alternative approaches to welfare state redistribution

As discussed, we need a prohibitively comprehensive approach in order to adequately assess welfare state redistribution: at a minimum such an approach needs to incorporate taxation, income transfers, and services, and also take care of the counterfactual problem. We must, additionally, recognize that income inequalities, poverty and government responses are surely also a function of the society's underlying demography and social composition. Some countries are more aged than others and some have far higher rates of lone parenthood. The social composition of key groups can also be of major relevance. In the US and UK, lone parenthood is far more slanted towards low educated women than elsewhere. This implies that two welfare states with identical egalitarian commitments may produce different results, or that a welfare state with unfavorable demographics must make an additional redistributive effort to reach the same end-result.

We have, as yet, no single study that adequately incorporates all the above issues. Micro-data based simulation (such as the EUROMOD) can help overcome some of these shortcomings to the extent that it permits us to control for differences in socio-demographic composition, and partially address the counter-factual – the latter by simulating what the effect would be if one country were to adopt a different country's welfare state. This kind of approach has been adopted by Sutherland (2001), Matsaganis et.al., 2004, Immervoll et.al., 2005, and Rainwater and Smeeding (2003). The latter, using the LIS data, simulate what child poverty would have been in a number of countries *if* their demographic profile were similar to the US and *if* their welfare states

offered the kind of income support found in the American. The US demography may be adverse in terms of child poverty but some other countries' (particularly Australia and the UK) poverty rates would actually diminish if saddled with a similar demography. In any case, the impact of demography pales in comparison with the welfare state effect. They find that child poverty in the Nordic countries would double and even triple if their welfare state performed like the American. Pretty much the same picture obtains for Belgium, France, Germany and the Netherlands. Only in Spain and Italy would the adoption of the US policy model actually contribute to a fall in child poverty.

Matsaganis et.al. (2004) address an issue that is of special interest from a welfare regime perspective, namely what effects a Nordic type child support policy would have on child poverty in Southern Europe – where, as we have seen, policy is unusually undeveloped (and child poverty substantial). They find that benefits targeted to the poor tend to be inefficient since take-up tends to be very incomplete and that, therefore, a Danish-style universal benefit model will have a far greater poverty-reduction effect, especially if pegged at Denmark's generosity level. A Danish benefit system would lower child poverty (by almost 4 percentage points, or about a 20 percent reduction) in Portugal and Spain but at a very high additional budgetary cost.¹⁷

So far we only have simulations that examine specific components of the welfare state, such as family benefit systems. The great and, as yet, unmet challenge would be to adapt this methodology to address the equalizing effects of welfare states as such and, in particular, to attack the counter-factual problem. Until we have a more precise idea of how, and how much, market-based inequalities are patterned by the welfare state we are essentially unable to answer the question posed in this chapter.

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¹⁷ In Italy, surprisingly, a Danish policy would increase child poverty.

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