

## **Policy Goals and Outcomes in ‘Three Worlds of Welfare Capitalism’**

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### **Abstract**

Measures of income mobility should be valuable for assessing performance in achieving national policy goals. We propose a portfolio of measures to assess policy goals relating to 1. economic growth and rising living standards 2. equality of opportunity 3. equality of outcomes 4. income security and 5. social solidarity. The measures are used to assess recent policy performance in the US, Germany and the Netherlands. These countries are taken as cases (‘best cases’ in terms of economic performance) of Esping-Andersen’s (1990) ‘three worlds of welfare capitalism’.

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There is an almost infinite number of ways in which income mobility could be conceptualised and measured, but no agreement among social scientists about which measures are most useful for analytic or policy purposes. The most commonly used measures of mobility at present are changes in the quantile ranks of income units between time periods (e.g. changes in quintile ranks between  $t_1$  and  $t_2$ ), but it is often not clear why these measures are selected; they have no obvious policy relevance. The purpose of this paper is to suggest measures which are valuable from a public policy standpoint (Fields/Ok 1996; Jenkins 2000; van Kerm 2001). We assume that policy goals broadly reflect public demands, and begin by discussing measures of mobility which an individual or family might find relevant as they think about their own subjective economic welfare and reflect on how it has changed during, say, the last decade.

In the main part of the paper the suggested measures are used to assess policy outcomes in the US, Germany and the Netherlands in 1987–1996. These three countries may be regarded as examples – indeed, as leading economic performers or ‘best cases’ – of what Esping-Andersen (1990) termed ‘the three worlds of welfare capitalism’. In this typology Germany is viewed as the prototypical conservative, corporatist type of welfare-capitalist regime, the Netherlands is a social democratic regime (albeit a borderline one in Esping-Andersen’s framework), and the US is the leading liberal regime. We shall find that

one's choice of mobility measures makes an enormous difference to assessment of which country is most mobile, and indeed to understanding what kinds of policy packages they are actually delivering to their citizens.

### **Subjective economic welfare – then policy goals**

As an approach to inferring policy goals relating to mobility, we begin by asking what changes in income an individual or family might wish for in reviewing its subjective economic welfare over the last decade or so. For present purposes we define subjective economic welfare as satisfaction with one's material standard of living.

The individual or family might first ask: *“How much has our income gone up or down in real terms in the last ten years?”* This is a question relating to absolute mobility, and it is reasonable to suppose that subjective welfare is greatly affected by absolute mobility. The public policy goal which absolute mobility translates into is rising GDP per capita, where the benefits are dispersed widely rather than concentrated on particular groups.

A second question that might be asked is: *“How have I/we done – how has my income changed – relative to other people in this country? Am I getting ahead, am I doing as well as I and others would have expected?”* This is a question about relative mobility and translates into the public policy goal of equality of opportunity, or at least widespread opportunities. In measuring relative mobility we need to specify ‘relative to what?’ A peer group or income yardstick has to be used to assess how relatively well or badly particular individuals or households are faring. Alternative yardsticks are discussed in the Methods section.

A third question which might spring to mind is: *“Have I had a rough ride or an easy ride? Has my income been stable and secure, or has it been risky and precarious?”* This raises issues about security of living standards and there is every reason to suppose that people's subjective welfare is substantially affected by their perceptions of income security. We can label this dimension of mobility wave mobility or income risk. The relevant public policy goal, which welfare states promote to a greater or lesser extent, is income security.

### **Additional public policy goals – collective goals**

So far we have three dimensions of mobility – absolute mobility, relative mobility and income risk – which affect subjective welfare and can readily be translated into public policy goals. We now add two policy goals of a collective nature. One is *income equality* – one aspect of equality of outcomes – and the other is *income solidarity*. Income equality, for someone who believes in

it, is a collective rather than an individual goal in that it makes little sense to say, “I want my income to become more equal to other people’s”. But a person could reasonably say, “I want our society to become more equal”. Income equality is closely related to income mobility, because the more people’s incomes fluctuate over time, the more equal they become in the medium and long term. This linkage led Shorrocks (1978) to propose that multi-year measures of income equality could serve as measures of mobility.

The final goal considered here – income solidarity, an aspect of social solidarity – is presumably what people have in mind when they worry about social exclusion, when they worry that some members of society are not enjoying the fruits of economic growth, not sharing in the general prosperity. The collective goal of social solidarity may be expressed as, “I want us to stick together as a society – to share the gains and share the losses”. In this view, government policy should promote a shared economic fate, not allowing some sections of society to get ahead while others flounder, and perhaps ensuring that during a recession all sections bear the losses or sacrifices required.

What expectations or hypotheses would we have about policy performance in relation to these goals in a liberal welfare-capitalist state (the US), a corporatist state (Germany) and a social democratic regime (the Netherlands)? Extrapolating from Esping-Andersen (1990) and our own previous research on these countries (Goodin et al. 1999), we would expect that the liberal US regime performed best in relation to its priority goal of achieving high levels of economic efficiency and rising living standards. The Dutch social democratic regime would be expected to perform best in regard to egalitarian goals; equality of opportunity and equality of outcomes. Corporatist Germany would be predicted to do best in pursuing goals of income security and social solidarity.

## Methods

### The three panels

The three panel surveys analysed here are the American Panel Study of Income Dynamics (PSID), the German Socio-Economic Panel (GSOEP) and the Dutch Socio-Economic Panel (SEP). All have over 10,000 respondents in the period considered, and they are the only three national economic panels to have run for ten consecutive years or more.

The PSID began in 1968 and has continued ever since. Low-income households were initially over-sampled, because the study was partly paid for by the Office of Economic Opportunity. One respondent answers on behalf of each household and the sample is renewed and kept more or less representative by interviewing ‘split-offs’; that is, people who leave their original household and move to a new one (e.g. children leaving home to get married). Longitudi-

nal weights are used to adjust for panel attrition and other sources of sample bias.

The GSOEP and the SEP both began in 1984. The GSOEP initially over-sampled foreigners (guest-worker households) and also added a supplementary post-unification immigrant sample in 1995. The German and Dutch panels also follow split-offs and also, of course, require use of longitudinal weights whenever multi-year analysis is undertaken. The PSID and GSOEP files have been adapted for comparability by the German Institute for Economic Research (DIW) and Cornell University (Cornell University, 2001). We have prepared an equivalent Dutch file.<sup>1</sup>

This paper covers the years 1987–96, since this is the last decade of data available for all three countries. Only West German data are used, since East Germans were not interviewed until 1990. In all three countries analysis is restricted to households headed by men or women of prime working age (25–59). These are the households mainly affected by the equity and efficiency goals we assess via income mobility measures. The issues facing retirement age households and younger student age households are quite different.

## Measures

### *Equivalised income*

The aim is to measure mobility in households' material standard of living. So, following usual practice, all income measures have been equivalised, in this case by use of the International Experts' equivalence scale, which requires dividing incomes by the square root of household size (Buhmann et al. 1988). This is almost the same as the current OECD equivalence scale of 1.0 for the first adult, 0.5 for other adults and 0.3 for children. In parts of the paper we shall want to look at the impact of government – the tax-transfer system – on mobility. For this purpose it makes sense to equivalise market incomes too, in order to compare mobility of market or pre-government incomes with disposable or post-government incomes. The formula used for assessing the impact of government, derived from Kakwani (1986) and Ringen (1991), is:

*Impact of government (%) = 100 \* (post-government mobility – pre-government mobility) / pre-government mobility.*

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<sup>1</sup> The GSOEP Cross-National Equivalent File is described in Burkhauser et al. (2001) and Cornell University (2001). The information on the English version of the SEP data is available at [http://wsa.magw.nl/index\\_uk.htm](http://wsa.magw.nl/index_uk.htm).

### *Measuring four types of income mobility*

Absolute mobility is simply the absolute (inflation adjusted) change in households' disposable incomes during the decade. This is used to measure policy goals relating to (a) economic efficiency and rising living standards (b) aspects of equality of opportunity and (c) aspects of equality of outcomes. Measurement of relative mobility requires a choice of standards or yardsticks – change in income relative to what? Perhaps the two standards most obviously relevant to policy goals and subjective welfare are mobility measured as change in income percentile rank and mobility as gains/losses relative to national median income. For the first measure we compare the percentile rank of each person's income in 1996 with his/her starting rank in 1987. Similarly, mobility relative to national median income is the percentage of median income one received in 1996 compared to 1987.

The best way to measure wave mobility or income risk is not obvious. At first sight a valid measure would be the mean or median coefficient of variation of the ten annual incomes people in each country received in 1987–96. But this measure is open to the objection that it confounds upside and downside risk; the coefficient would be the same if one's income steadily increased or steadily declined throughout the decade. Probably when policy makers or the public think about income security they really only have in mind security against downside risk. So the measure we propose is the number of times in the decade a person's income in the current year declined by more than 10% in real terms compared to the previous year. This very straightforward measure uncovers large differences among the countries.

A measure of shared directional mobility should capture the extent to which a nation's people share the same economic fate – get richer or poorer together. This is assessed by measuring the percentage of the population whose own real incomes rose or fell by within plus or minus 10% of national per capita economic growth during the decade. We test the sensitivity of this threshold by also considering changes between plus or minus 25%, between plus or minus 25–50%, or at the extreme by plus or minus 50%.

## **Results**

### *Goal 1 – rising living standards, economic efficiency absolute mobility*

First, we present background information on economic growth in the three countries.

Table 1

**Economic Growth Per Capita in 1987–96 (%)**

	US	Germany	Netherlands
Real economic growth	23.9	24.7	28.0
Population growth	9.5	8.3	7.4
Economic growth per capita	14.4	16.4	20.6

Notes: All values are in percentages. Calculated from growth indices in OECD *Economic Outlook* (1999).

Our first expectation proves false. The liberal US welfare-capitalist regime, which gives highest priority to economic efficiency and growth, did not have the highest growth rate. The comparison is a fair one because in all three countries the decade began and ended with reasonable growth and there was a recession in the middle. The American recession was the worst; the Dutch one was barely a pause. (If the period were extended to the present the American and Dutch relative performances would be the same, but Germany would slip back). The widespread impression that the US economy has outperformed the economies of most of Western Europe in the last ten to fifteen years is not correct in per capita growth terms, although it is true in employment terms.

Next we present evidence that relates more directly to rising living standards, and hence to absolute mobility of incomes. Table 2 shows mean and median increases in real equivalent incomes and the percentage of the population in each country whose incomes were higher at the end of the decade than the beginning ('winners').

Table 2

**Economic Efficiency & Rising Living Standards:  
Households with Heads Aged 25–59 Absolute Mobility 1987–96**

	United States			Germany			Netherlands		
	Pre-gov't income	Post-gov't income	Gov't impact	Pre-gov't income	Post-gov't income	Gov't impact	Pre-gov't income	Post-gov't income	Gov't impact
Average increase	74.6	58.3	– 21.8	45.5	31.6	– 30.5	61.6	49.0	– 20.5
Median increase	13.5	25.7	90.3	24.1	21.1	– 12.4	11.3	19.8	75.2
Winners	59.6	66.0	10.7	67.6	68.8	1.8	60.0	69.1	15.2

Notes: All values are in percentages. The government impact is the percent difference between the post- and pre-government income increases. Winners are those whose income rises over the period.

The comparisons here do not show a clear pattern. American mean and median increases in disposable income were highest but there were slightly more winners in the Netherlands and Germany than in the US. The evidence on the impact of government (the third column for each country) implies that the American and Dutch tax-transfer systems – or really the tax side – favoured middle income earners more than the German, having a more positive impact on median incomes and on the percentage who emerged as ‘winners’. The main point, however, is that our expectation that living standards would have risen most strongly in liberal US is not confirmed. In practice, the performance of the three types of regime in promoting rising living standards was quite similar.

### *Goal 2 – equality of opportunity*

Our first measure of equality of opportunity, changes in people’s percentile rank in the income distribution, is the measure most commonly used by sociologists. Arguably, though, it has the drawback that it is easier to move up and down the ranks in a society with a more equal income distribution than in a more unequal society, because the same dollar gain or loss will produce more movement in the more equal society (Fritzell, 1990; Gustafsson, 1994). Table 3 is intended to answer the question, ‘What was the median change in rank by 1996 of people starting in different quintiles in 1987?’ In practice, we show results only for the top and bottom quintiles, because these are the only ones for which the international comparison shows differences. (In all countries members of the 2<sup>nd</sup> quintile moved up a bit on average, the 4<sup>th</sup> quintile moved down a bit, and the middle quintile stayed put).

Table 3

#### **Equality of Opportunity: The Chance to Get Ahead: Households with Heads Aged 25 – 59 Percentile Ranks Mobility 1987 – 96**

	United States			Germany			Netherlands		
	Pre-gov’t income median percentile change	Post-gov’t income median percentile change	Gov’t impact	Pre-gov’t income median percentile change	Post-gov’t income median percentile change	Gov’t impact	Pre-gov’t income median percentile change	Post-gov’t income median percentile change	Gov’t impact
Bottom quintile	8	8	0	14	15	7.1	13	14	7.7
Top quintile	– 7	– 8	14.3	– 9	– 8	– 11.1	– 15	– 17	11.8

Notes: All values are in percentages. The government impact is the percent difference between the post- and pre-government income median percentile change.

Results here are not quite in line with expectations. In the social democratic regime, the Netherlands, there was the greatest mobility, but it was especially marked at the top end of the distribution rather than the bottom. Opportunity for the lowest quintile to get ahead was just as high in Germany (the difference between the two countries not being significant at the .05 level). Both European countries recorded higher mobility at the bottom end than the US. At the top end the Netherlands stands out as a country in which, exaggerating slightly, one might say 'it is easy to get rich, but hard to stay rich'. The impact of government in all three countries is negligible. The tax-transfer system does reduce inequality in all three countries (Goodin et al. 1999) but it does little to alter people's income ranks; perhaps a politically dangerous thing to do.

Table 4

**Equality of Opportunity: The Chance to Get Ahead:  
Households with Heads Aged 25–59 Mobility Relative to Median (Mainstream)  
Income 1987–96**

	United States			Germany			Netherlands		
	Pre-gov't income median percentile change	Post-gov't income median percentile change	Gov't impact	Pre-gov't income median percentile change	Post-gov't income median percentile change	Gov't impact	Pre-gov't income median percentile change	Post-gov't income median percentile change	Gov't impact
Bottom quintile	17	17	0	14	13	- 7.1	13	13	0
Top quintile	- 30	- 32	6.7	- 36	- 23	- 36.1	- 48	- 37	- 22.9

Notes: All values are in percentages. The government impact is the percent difference between the post- and pre-government income median percentile change.

Table 4 provides a second measure of equality of opportunity – mobility relative to national median income. This measure does not have the problem of being likely to show more apparent mobility in a more equal society than an unequal one. The table shows median outcomes in 1996 for people starting in the top and bottom quintiles in 1987. Here results are plainly not in line with expectations. On this measure, the US bottom quintile had most chance to get ahead – moving up 17% relative to national median disposable income in 1996 compared to their position in 1987. The Dutch and German bottom quintiles both gained 13% relative to median income. At the top end of the distribution there is considerably more mobility, and it again appears that the Netherlands is a hard place in which to retain a high income. The impact of government is again negligible at the bottom end, and also at the top end in the US.



In the Netherlands and Germany, which tax more heavily than the US, the decline in the incomes of people who started in the top quintile in 1987 is cushioned by government, being considerably less in post-tax than pre-tax terms. It appears that if people's incomes decline in the European countries they can get more valuable tax concessions than are available in the US. This is perhaps somewhat counter-intuitive and, as noted, may be principally a result of the fact that the Europeans pay much higher taxes in the first place, and so can more readily find ways of reducing them when income losses occur.

### *Goal 3 – equality of outcomes*

Shorrocks' (1978) mobility measure ( $M$ ) is based on the idea that income mobility and income equality are closely linked, so that the more people's incomes fluctuate relative to each other over time, the more equal society will become in the long run. It follows that one way to measure mobility is to see how much lower an inequality coefficient is over a period of years combined ( $I_T$ ) than it was for the weighted average of the years ( $I_{AV}$ ). Mobility is measured by  $M = 1 - I_T / I_{AV}$ . Table 5 gives Shorrocks'  $M$  for the three countries (bottom row) and also governmental impact on equality for one-year periods and the full ten years combined. Theil-0 (the mean logarithmic deviation of incomes) is preferred as an inequality coefficient because, unlike many other measures, it gives equal weight to reductions in inequality at both ends of the distribution.

Our expectation was that the Netherlands, as a social democratic regime, would achieve greatest equality of outcomes and the US least, and this proved to be the case. Market or pre-government income inequality was lowest in the Netherlands and government there then did a bit more than in Germany and much less than in the US to reduce disposable income inequality. Over ten years, using the Theil-0 measure, the differences in inequality among these regimes are massive. German inequality is over 60% lower than American (Theil-0 is 0.083 compared with 0.222) and Dutch is 25% lower than German (0.061 compared with 0.083).

The Shorrocks  $M$  coefficients give further evidence, bolstering results in Table 2 and 3, that in many respects the Netherlands is also the most mobile society. Using this measure, mobility of disposable incomes is considerably higher than in the US, which in turn is more mobile than Germany. The evidence about the impact of government is fascinating. The corporatist conservative regime, Germany, actually reduced mobility – just what a conservative regime 'should' do – and the American government had virtually no impact, which is fine for a liberal regime. The Dutch social democratic regime apparently increased mobility to a moderate extent (compare Tables 3 and 4).

Table 5

**Equality of Outcomes: A Fair and Equal Society?  
Households with Heads Aged 25–59  
Shorrocks (Mobility): Theil Coefficients 1987–96**

	United States			Germany			Netherlands		
	Pre-gov't income	Post-gov't income	Gov't impact	Pre-gov't income	Post-gov't income	Gov't impact	Pre-gov't income	Post-gov't income	Gov't impact
Theil 1987	.266	.203	-23.7%	.149	.092	-38.3%	.137	.082	-40.1%
Theil 1996	.377	.377	0.0%	.179	.110	-38.5%	.191	.108	-43.5%
Theil weighted annual average ( $I_{AV}$ )	.322	.290	-9.9%	.164	.101	-38.4%	.154	.095	-38.3%
Theil 1987–9-6 ( $I_T$ )	.246	.222	-9.8%	.121	.083	-31.4%	.104	.061	-41.3%
Shor-rocks $M$	23.6%	23.4%	–	26.2%	17.8%	–	32.5%	35.8%	–

Note: Government impact is the percent different between the post- and pre-government inequality.

*Goal 4 – income security, income risk, wave mobility*

Our expectation was that income security – the absence or reduction of downside risk – would be highest in corporatist Germany and lowest in liberal US, with the Netherlands in between. Table 6 compares downside risk in the three countries and also shows the impact of government.

The results indicate that income security was much higher in Germany and the Netherlands than the US, but the difference between the two European countries was not significant at the 0.05 level. The Dutch government actually did most to reduce insecurity, but fluctuations in market incomes were higher there than in Germany, so in a sense the Dutch government needed to do more if it valued security. The liberal US regime does almost nothing to reduce insecurity, in line with its market-driven preferences.

It is astonishing – at least for an academic – to see how insecure many people’s incomes are. Over half of Americans experienced a drop in disposable

Table 6

**Income Risk: How Secure was my Income?**  
**Households with Heads Aged 25–59**  
**Wave Mobility: Income Fell > 10% in 3 or more Years**

	United States			Germany			Netherlands		
	Pre-gov't income	Post-gov't income	Gov't impact	Pre-gov't income	Post-gov't income	Gov't impact	Pre-gov't income	Post-gov't income	Gov't impact
All households	56.1	54.3	-3.2	42.5	36.2	-14.8	57.1	37.3	-34.7
Top quintile	44.2	41.8	-5.4	44.9	36.4	-18.9	57.1	33.6	-41.2
Middle quintile	52.0	51.1	-1.7	38.6	33.4	-13.5	54.2	37.9	-26.4
Bottom quintile	75.6	73.8	-2.4	53.9	44.1	-18.2	58.7	46.3	-21.1

Note: All values are in percentages. Government impact is the percent difference between the post- and pre-government income percentage with an income fall of more than 10%.

income of more than 10 % in three or more years in this decade, and nearly three-quarters of those in the bottom quintile (the quintiles are here defined by average annual income over the decade). In Germany insecurity of market incomes was lower than in the other two countries, the government intervened to further reduce downside risk, and the end result was still that over one-third experienced a fall of over 10 % in three or more years. The Dutch working age population had market incomes just as insecure as Americans, but government interventions produced a final outcome similar to Germany. There is perhaps some suggestion here that the Dutch government allows the labour market to do its job in allocating incomes and providing individual incentives at the workplace, but then protects families through the tax-transfer system.

*Goal 5 – social solidarity, shared directional mobility*

The final goal we consider – social solidarity – is measured by the extent to which, in each country, people's incomes tracked the level of national economic growth over the period. Table 7 shows percentages of the population whose pre- and post-government incomes increased by within plus or minus 25 % of the national growth rate for the decade, between 25– 50 %, by over 50 %, and by less than 50 % of the national figure. For example, the American

growth rate for the whole period was 14.4 % (see Table 1), so those whose incomes grew by within plus or minus 50 % of the national rate were those whose gains were in the 7.2 %-21.6 % range.

Table 7

**Social Solidarity: Sharing the Fruits of Growth?**  
**Households with Heads Aged 25–59**  
**Income Increases Relative to Growth in G.D.P. per Cap. 1987–96**

	United States			Germany			Netherlands		
Own income increase relative to GDP	Pre-gov't income	Post-gov't income	Gov't impact	Pre-gov't income	Post-gov't income	Gov't impact	Pre-gov't income	Post-gov't income	Gov't impact
Within 25% band	4.9	4.8	-2.0	6.1	8.7	42.6	8.0	11.3	41.3
Within 25–50% band	5.3	4.7	-11.3	6.8	7.8	14.7	8.5	11.3	32.9
Over 50% band	44.1	52.4	-18.8	49.5	46.3	6.5	34.9	38.7	-10.9
Below 50% band	45.6	38.2	16.2	37.6	37.2	1.1	48.6	39.0	19.8
Total	100.0	100.0	–	100.0	100.0	–	100.0	100.0	–

Note: All values are in percentages. Government impact is the percent difference between the post- and pre-government income percentage with an income change within the band.

As perhaps could have been guessed from the data on income (in)stability in the previous table, there are in fact rather few individuals whose own real income increases are closely in line with national growth. Our expectation was that corporatist Germany and social democratic Netherlands would have higher income /social solidarity than liberal US. In fact, solidarity of this kind is clearly highest in the Netherlands, Germany is in between and the US is lowest.

*Summary: ranking performance in regard to policy goals*

In summary these three countries, or three different regimes, deliver remarkably different policy packages to their citizens. The US is the place to be if you want the chance to strike it rich and don't mind considerable poverty and inequality. Germany is fine if you value the corporatist goal of household income security (although results for the Netherlands were much the same) but don't much care about equality of opportunity. The Netherlands, in this decade, has been a pretty good place to be whatever your policy goals. It ranked first or equal first on all goals – rising living standards, equality of opportunity and outcomes, income security and solidarity.

Largely because the Netherlands performed so well (fuelled by the highest economic growth rate), some of our initial expectations proved false. The liberal regime was outperformed in relation to its priorities of rising living standards, and the corporatist regime was equalled in regard to income security and outperformed in regard to social solidarity. Our evidence on income mobility (Tables 3 and 4) indicated that governments do little to change the income ranks of working age households (a measure of equality of opportunity) and little to promote income solidarity. These aspects of income mobility are left to the market. On the other hand, the Dutch and German governments do a great deal through the tax-transfer system to increase equality of outcomes (and reduce poverty, although this is not analysed here) and income security.

## Discussion

What are the broader implications and policy learning implications (if any) of our results? In general, the finding that these three Western welfare-capitalist regimes deliver such remarkably different policy packages may be seen as counter-evidence to the view that globalisation and other forces are somehow imposing policy convergence. Welfare states and tax-transfer systems remain very different, even within the Western world; convergence in these areas seems quite limited.

The implications of Dutch policy performance in this decade (and since) are probably of greater practical import. The Dutch government appears to have combined equity and efficiency in ways which suggest that, with skilled policy design, the so-called 'big trade-off' (Okun 1975) between these two desiderata is not unavoidable and can perhaps be largely avoided (Headey et al. 2000). There is some indication that OECD and other international organisations have tentatively come to this view and occasionally hold up Dutch performance as something from which other West European countries can learn (OECD 1998, 1999). Of course, this might be naive; the subsequent performance of previously lauded 'miracle economies' gives cause for scepticism.

Even so, in our own work we think it worthwhile to continue comparing the performance of different types of welfare-capitalist regime. We need much more detailed and policy specific explanations of differential policy performance if valuable lessons of policy design and transfer are to be derived.

## References

- Buhmann, B./Rainwater, L./Schmaus, G./Smeeding, T. M.* (1988), Equivalence scales, well-being, inequality and poverty: sensitivity estimates across ten countries, using the Luxembourg Income Study (LIS) database, *Review of Income and Wealth*, 34, 115–42.
- Burkhauser, R. V./Butrica, B./Daly, M. C./Lillard, D. R.* (2001), The Cross-National Equivalent File: A product of cross-national research, in: I. Becker/N. Ott/G. Rolf (eds.), *Soziale Sicherung in einer dynamischen Gesellschaft. Festschrift für Richard Hauser zum 65. Geburtstag*, Frankfurt/New York, 354–376.
- Cornell University*, Department of Policy Analysis and Management and the German Institute for Economic Research (2001), GSOEP-PSID-SLID Equivalent File 1980–2000. Ithaca.
- Esping-Andersen, G.* (1990), *The Three Worlds of Welfare Capitalism*. Oxford.
- Fields, G. S./Ok, E. A.* (1996), The meaning and measurement of income mobility, in: *Journal of Economic Theory*, 71, 349–77.
- Fritzell, J.* (1990), The dynamics of income redistribution: economic mobility in Sweden compared to the United States, in: *Social Science Research*, 19, 17–46.
- Goodin, R. E./Headey, B. W./Muffels, R./Dirven, H. J.* (1999), *The Real Worlds of Welfare Capitalism*, Cambridge.
- Gustafsson, B.* (1994), The degree and pattern of income mobility in Sweden, in: *The Review of Income and Wealth*, 40, 67–86.
- Headey, B. W./Goodin, R. E./Muffels, R./Dirven, H. J.* (2000), Is there a trade-off between economic efficiency and a generous welfare state? A comparison of best cases of 'the three worlds of welfare-capitalism', in: *Social Indicators Research*, 50, 115–157.
- Jenkins, S. P.* (2000), Modelling household income dynamics, in: *Journal of Population Economics*, 13, 529–567.
- Kakwani, N.* (1986), *Analysing Redistribution Policies*, Cambridge.
- OECD* (1998), *Employment Outlook*. Paris.
- (1999), *Economic Outlook*. Paris.
- Okun, A. M.* (1975), *Equality and Efficiency: The Big Trade-Off*, Washington D.C.

- Ringen, S.* (1991), Households, standard of living and inequality, in: *The Review of Income and Wealth*, 37, 1 – 13.
- Shorrocks, A. F.* (1978), Income inequality and income mobility, in: *Journal of Economic Theory*, 46, 376 – 93.
- van Kerm, P.* (2001), *Essays on Income Mobility and Income Distribution Dynamics*, Naumur.