Vierteljahrshefte zur Wirtschaftsforschung
70. Jahrgang, Heft 1/2001, S. 115–122

The Structure of Inequality

(Not) Sharing The Fruits of Growth: The Impact of Governments and Markets on Living Standards in Germany, the Netherlands and The United States, 1986–95

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Summary

This paper reviews changing income distributions in the United States, Germany, and the Netherlands, treating the three countries as leading economic performers in 'the three worlds of welfare capitalism.' Previous analyses have shown that earnings dispersion is increasing. The potential impact of government through the tax and transfer system has been largely ignored. It is shown that in the United States and Germany changes in market incomes favored the upper quintiles and that the bottom quintile became worse off. Government did nothing to reverse these trends. In the Netherlands the trend in market incomes was similar but the government redistributed, so that the bottom quintile's post-government income increased along with the other quintiles. Data come from the PSID-GSOEP Equivalent File and the Dutch Socio-Economic Panel.

1. Introduction

The 1980s and 1990s were decades of reasonably good economic growth in most Western countries. It is generally believed, however, that the fruits of growth were unequally shared, with most gains going to higher income groups. If correct, this trend runs counter to Kuznets's (1955) observation that inequality increases during industrialization and then can be expected to fall. It is usually argued that incomes have become more unequal because technological change has lowered demand for low-skill workers relative to higher skilled workers and because increased international trade (globalization) has shifted low-skill work to developing countries, to the further detriment of low-skill Westerners (e.g., Burtless 1995). In the United States, with its more flexible labor market, unemployment has stayed low, in part because wages for low-skill workers have fallen. In addition, rapid economic growth has promoted high employment. Many assert that high unemployment persists in the less flexible labor markets of Western Europe because wages have not fallen to market clearing levels and because economic growth has been lower than in the United States. Atkinson (1999) calls this reasoning 'the transatlantic consensus' on explanations of growth, unemployment and, particularly, rising inequality.

This account notably lacks an explicit statement about the impact of governments on income inequality. Economists are generally critical of West European governments for failing to create flexible labor markets that reduce unemployment, but write little about the policy options available to governments to modify household income distribution. Yet, as is well known, all Western governments tax and spend between 30 percent and 60 percent of GDP. These governments could use their expenditure to redistribute income, so that disposable (or post-government) income would be distributed more equally than market (or pre-government) income. A question raised in this paper is whether, as the distribution of market income has become more unequal, governments have done anything to counteract the trend. Have the fruits of growth been unequally shared in all countries or have some governments intervened to redistribute in favor of lower income groups? Have some governments perhaps intervened to add to inequality?

To make our value position explicit, we believe that, in periods of good economic growth, the fruits should be shared among all main sections of the community and that government should intervene if market forces in-

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crease income dispersion. It has often been suggested (notably by Okun, 1975) that there is a direct trade-off between equality and economic growth and efficiency. Here and elsewhere we present evidence that suggests that a reasonably generous welfare state does not necessarily reduce efficiency and growth (Goodin et al. 1999; Headey et al. 2000). Such evidence lends weight to the view that the fruits of growth should be shared.

This paper reviews trends in market incomes and disposable (or post-government) incomes in Germany, the Netherlands and the United States in 1986-95. We select these countries because there exists at least ten years of panel data for each and because they can be taken as exemplars of the three main types of welfare-capitalist state (Esping-Andersen 1990; Goodin et al. 1999). In Esping-Andersen's well-known typology, the United States is cast as the prototypical liberal welfare-capitalist state, whose policies give top priority to economic efficiency and growth, and low priority to reducing poverty and income inequality. Germany is typified as the leading corporatist, conservative welfare-capitalist state, with policies that give high priority to maintaining the stability of household incomes and thus, one might infer, to maintaining existing levels of inequality. The Netherlands is classified by Esping-Andersen as a social democratic welfare-capitalist state largely because of its progressive tax and transfer system. Social democratic states give high priority to reducing market-generated poverty and inequality. These countries are leading economic performers. They have achieved higher growth rates than other countries in similar categories (Goodin et al. 1999).

The paper focuses on households with heads of prime working age (25-59). After a brief comparison of economic growth and changes in living standards (purchasing power) in the three countries, we compare the market and post-government incomes of *income quintiles* to assess how they have fared in the three types of welfare-capitalist state.

2. Expectations regarding economic growth and living standards (E = expectation)

We expect economic growth and income inequality in each country to reflect the values/priorities of the type of welfare-capitalist system each embodies (as outlined above). Our expectations are:

E1 GDP per capita increased faster in the United States than in Germany and the Netherlands in 1986–95.

E2 Purchasing power per capita increased more rapidly in the United States than in Germany and the Netherlands.

E3 In all three countries inequality of market incomes increased.

E4 Inequality of market incomes increased most in the United States (a more flexible labor market) and less markedly in Germany and the Netherlands.

E5 The Dutch government (the social democratic welfare-capitalist state) acted through the tax and transfer system to counteract rising inequality of market incomes. The United States government (the liberal welfare-capitalist state) did least to counteract rising inequality, and the German government (the corporatist state) was in between.

E6 Post-government inequality rose least in the Netherlands, most in the United States, with Germany in between.

3. Methods

The American Panel Study of Income Dynamics (PSID) began in 1968. Poor households were initially oversampled and, because split-off households continue to be followed, the current file contains over 33,000 households. The German Socio-Economic Panel (GSOEP) began in 1984 in West Germany and was extended to East Germany in 1990. The initial sample size was about 16,000 individuals, and contained an oversample of foreign (guest worker) communities. To use ten years of data, we restrict our sample to West German respondents (Germans and foreigners). The Dutch Socio-Economic Panel also began in 1984 with around 11,000 respondents in 4,000 households. It has been enlarged on various occasions to achieve and maintain a sample of about 5,000 households. Cornell University and the German Institute for Economic Research (DIW) have produced an Equivalent File for the German and American panels in which key variables relating to income, labor force experience, taxes, and transfers were coded identically to facilitate international comparisons (Cornell and DIW, 1999). We have constructed a comparable Dutch file for the years up to 1995.

We use income as an approximate measure of people's material standard of living, or, to be more exact, their potential level of consumption. In the American and German panels, pre-government household income consists of household labor income, asset income (e.g., income from investments or property rents), private transfers (e.g., child support payments) and owner-occupiers' imputed net rent. In the Dutch panel owner-occupiers' imputed net rent is not available. Because our measures of poverty or inequality vary only slightly when we omitted imputed rents, we retain it in the German and American income measures. Post-government income, or what is more commonly called disposable income, is defined here as pre-government income minus direct taxes plus government payments (public transfers). Our measure of post-government income takes no account of indirect taxes or the value of non-cash benefits and services provided by

DOI https://doi.org/10.3790/vjh.70.1.115

government. The value of food stamps in the United States is included.

To estimate the impact of government policies on household income, we use the general formula (Kakwani 1986; Ringen 1991b):

$$\frac{\textit{governmental}}{\textit{redistribution}(\%)} =$$

$$\left(\frac{pre-government\,income - post-government\,income}{pre-government\,income}\right)\times 100 \quad (1)$$

Although we use this formula to investigate inequality in income, it can be applied in many ways (e.g., directly on measures of pre- and post-government income inequality itself).

Apart from the section on national economic growth, all income measures are adjusted for household size and composition (equivalized income). We have equivalized not just post-government incomes but all components of income: labor income, asset income, taxes, and transfers. By expressing everything in equivalized terms, it is possible to observe how various components of changing income contributed to changes in people's standard of living during this decade.

4. Results

We first give results for the whole population and then mainly focus on the bottom, middle, and top quintiles. Usually, research on inequality just considers the top and bottom quintiles, but in representative democracies the middle electorate is most politically important. In addition, some researchers have recently observed that the middle class is 'disappearing' and it has been found that the middle class is moving up so that there has been an upward tilt in incomes. Consequently, more people are moving into higher income groups at the expense of both the bottom and the middle of the income distribution (Atkinson 1999).

Economic Growth and Living Standards

Contrary to widespread impressions, the United States has not in recent years enjoyed faster per capita growth in GDP than most European economies. In the decade 1986-95 real GDP per capita rose 13.0 percent in the United States, 17.0 percent in West Germany and 22.7 percent in the Netherlands (OECD Economic Surveys 1988–1997). This period begins and ends in each country with steady growth and includes a recession in the middle of the period. If the years since 1995 had been included, the increase in per capita GDP would be higher in the Netherlands, while the German figure would be closer to those in the United States.

Cross-country comparisons of national income, even in real terms, often fail to accurately measure the standard of living represented by the income in each country. To try to capture what can be purchased with a given income, one can use measures of purchasing power parity (PPP). These measures compare the cost to a domestic consumer of purchasing a fixed basket of goods in his/her own country. Table 1 gives estimates of GDP per capita at PPP for the three countries in 1986 and 1995, and also of private consumption per capita. As well as giving dollar figures, we have indexed the United States estimates at 1.0 to facilitate comparisons of levels and trends in national living standards.

The most striking result in Table 1 is that German and Dutch per capita GDP in PPP terms is still less than 75 percent of the American per capita GDP, and that private consumption in the European countries is only two-thirds of the American level. One reason private consumption is lower is that public expenditure takes a much higher proportion of GDP in Germany and the Netherlands.

It is nevertheless true that German and Dutch living standards have been slowly approaching the American level. German GDP per capita increased from 73.5 percent of the American level in 1986 to 77.5 percent in 1995. The Dutch relative increase was a little higher, moving from 68.2 percent to 74.8 percent over the sample period.

Table 1

Comparing National Living Standards: Purchasing Power Parity Measures with United States Indexed at 1.00, 1986 and 1995

	1986 United States	1986 West Germany	1986 Netherlands	1995 United States	1995 West Germany	1995 Netherlands
GDP per capita at PPP	17 324	12 741	11 809	26 438	20 497	19 782
Current $	*1.00*	*.74*	*.68*	*1.00*	*.78*	*.75*
Private consumption per capita at PPP	11 500	7 116	7 016	17 834	11 707	11 854
Current $	*1.00*	*.62*	*.61*	*1.00*	*.66*	*.66*

Source: Authors' calculations.

Contrary to our first two expectations, per capita GDP and living standards in the United States increased more slowly over the sample period than in the European countries. At present rates, however, it will take another 40 years for the standard of living in the European countries to equal those in the United States.

(Not) Sharing the Fruits of Growth

Table 2 summarizes how the fruits of economic growth have been shared in these three different welfare-capitalist states. Median increases in real equivalent income are shown for each quintile. It should be noted that the 1986 and 1995 results are cross-sectional snapshots; in all three countries only a quarter to a third of people were in the same quintile at the beginning and end of the decade.

We expected increases in income to be distributed most equally in the social democratic welfare-capitalist state, the Netherlands, followed by corporatist Germany and the liberal United States. Our expectation is broadly confirmed, but there are important similarities across the three countries; similarities which probably reflect worldwide trends in the dispersion of labor earnings.

Only in the Netherlands was median income in all five quintiles higher at the end of the decade than the start. The highest gains went to the third and fourth quintiles, while median income in the poorest quintile rose notably less.

The German and American distribution patterns are quite similar. In both countries there is an unbroken gradation such that the set of people who occupied the poorest quintile at the end of the period had much lower income, in real terms, than did the set of people in the poorest quintile at the beginning of the period. Income growth in the other four quintiles was progressively greater. The largest difference in median income between the beginning and end of the period was between the incomes of the cross-section of people in the richest quintile at the beginning and end of the period. The change in median income at each section of the American income distribution is particularly extreme. Median income in the poorest quintile of the distribution fell by nearly 20 percent while median income in the richest quintile rose by 28 percent. Although we do not measure income of the same set of people in each period, one might observe, 'To him (or her) that hath more shall be given,' a concept of equity rarely endorsed but often implemented.

Table 2

(Not) Sharing the Fruits of Growth: Increases In Real Equivalent Income 1986–95 [a] (Heads Aged 25–59)

Quintile	Netherlands Median	West Germany Median	United States Median
Q1 (poorest)	2.3%	–7.8%	–19.5%
Q2	15.0%	6.0%	13.6%
Q3	20.1%	8.2%	14.4%
Q4	20.2%	10.0%	15.7%
Q5 (richest)	15.6%	15.8%	27.9%

[a] Constant guilders, marks, dollars.

Source: Authors' calculations.

As we show below, the increased inequality shown in Table 2 appears to be primarily due to increased dispersion of individual and household labor earnings. While the Dutch government appears to have taken some steps to mitigate this trend, the German and American governments do not appear to have done the same. In addition, the highly flexible American labor market has generated rapidly increasing income inequality.

The Poorest Quintile

To focus on income changes of the poorest quintile, we examine how various components of pre- and post-government income changed. The main aim is to assess whether changes in total income were due to changes in income from market activities or government policies. All components of income have been equivalized and mean rather than median incomes are reported.

In contrast to the other two countries, in the Netherlands the government prevented a decline in the incomes of the poorest quintile. In line with world trends, market incomes declined some in all three countries but less so in the Netherlands than in Germany and the United States. The decline in the Netherlands was modified by wage solidarity and wage restraint agreements between government, employer groups, and unions (Hemerijck and van Kersbergen 1997). Incomes of the poorest quintile were higher at the end of this decade, not because of market factors, but primarily because the real value of public transfers to this quintile increased by nearly 20 percent and the real value of the taxes they paid declined by 5 percent. On average, the poorest quintile in 1995 earned 6.3 percent less than their 1986 counterparts but received sufficiently more net government transfers so their post-government (disposable) equivalent incomes were 4.8 percent higher than in 1986. In Germany and the United States the poorest quintile in 1995 had much lower market income and labor earnings than the poorest quintile did in 1986. In both countries the tax and transfer system made little difference to disposable incomes, diminishing the effect of market changes only very slightly,

1 About 20 percent of blacks and about 40 percent of black children live below the official American poverty line. If the OECD poverty line is used (equivalent income less than 50 percent of median), the figures rise to around 45 percent of individuals and 55percent of children.

Table 3

The Poorest Quintile: Real Equivalized Income Changes 1986–95[a] (Heads Aged 25–59)

Household Income	Netherlands			West Germany			United States		
	1986	1995	% Gain[b]	1986	1995	% Gain[b]	1986	1995	% Gain[b]
Market Income	*14 125*	*13 242*	*–6.3%*	*13 240*	*11 814*	*–10.8%*	*5 194*	*4 096*	*–21.1*
Earnings	10 526	10 153	–3.5%	12 346	10 836	–12.9%	4 647	3 414	–26.5
Asset income	1 079	288		16	153		46	206	
Other income	2 520	2 801		788	825		501	476	
Impact of Government	*–2 343*	*–899*	*61.6%*	*239*	*407*	*70.7%*	*711*	*667*	*–6.2*
Transfers	5 291	6 284		3 196	3 121		1 256	927	
Taxes	–7 634	–7 183		–2 957	–2 714		(545)	na[c]	
Post-Government Income	*11 782*	*12 344*	*4.8%*	*13 479*	*12 222*	*–9.4%*	*5 904*	*4 763*	*–19.3*

[a] Constant (1986) guilders, marks, dollars.
[b] Only shown for major components of income.
[c] It should be noted that the PSID data are "early release," which on previous occasions has contained coding errors, especially in the tails of the distribution. The tax simulation results for 1995 appear to give a higher estimate of taxes than would be implied if one treated the estimates of pre-government income, transfers, and post-government income as correct, and then calculated the taxes that 'must' have been levied. It is of course arbitrary that we have here regarded the other estimates as correct and treated taxes as a residual in order to balance our books! However, calculated in this way they averaged $260.

Source: Authors' calculations.

primarily by the automatic application of tax and benefit rules.

It is important to know that the poorest quintiles are quite different groups in the three countries. In the Netherlands they are mainstream people whom governments are not inclined to neglect. They are nearly all Dutch by birth, 90 percent of the household heads are men, and just over half of those in the quintile are children. In the United States, by contrast over 40 percent are black, 55 percent of the household heads are (mainly black) women, and about half are children.[1] West Germany's poorest quintile is less mainstream than the Dutch. About 12 percent of the poorest quintile are foreigners (compared with 5 percent in the total population), just under 40 percent of the households are headed by women, and about 40 percent of those in the quintile are children.

The Middle Quintile

The middle quintile of the income distribution, the quintile that contains the median voter so beloved of public choice theory, experienced quite different fortunes and treatment from government.

In the Netherlands, disposable equivalent incomes increased most in the middle and fourth quintiles, but changes in government policies reduced the size of the increase. The market incomes of the Dutch middle quintile rose by 23.3 percent on average and their household labor earnings rose, largely because more women worked, by 28.8 percent. This large gain was reduced by decreases in government transfers and by an increase in taxes so that their post-government incomes rose by only 19.2 percent.

Incomes of the middle quintile in 1986 and 1995 in Germany and the United States changed as dramatically over this period. However, the routes by which they arrived at their outcomes were quite different. Market incomes of Germans in the middle quintile in 1995 were 14.5 percent higher than were incomes of those in the middle quintile in 1986 (labor earnings were 13.9 higher) but net transfers (benefits minus taxes) were 39.7 percent lower. The end result was that the income of those in the middle quintile in 1995 was only 8 percent higher than was income of the people who occupied the middle quintile in 1986. In the United States, by contrast, household labor income of the middle quintile in 1995 was only 6.4 percent higher than in 1986, but government lowered its net tax burden by 51.4 percent over this period. The middle quintile in 1995 had disposable income that was, on average, 13.9 percent higher than their 1986 counterparts enjoyed.

The Richest Quintile

Table 5 shows changes in the incomes of the richest quintile in the Netherlands, West Germany and the United States.

A remarkable finding here is that the market incomes of the richest quintile increased by about the same amount in all three countries (16 to 19 percent). Over this period, the United States government reduced the net tax burden on this group, while the Dutch and German governments increased their tax rates but also increased transfers in

Table 4

The Middle Quintile: Real Equivalized Income Changes 1986–95[a] (Heads Aged 25–59)

Household Income	Netherlands 1986	Netherlands 1995	Netherlands % Gain[b]	West Germany 1986	West Germany 1995	West Germany % Gain[b]	United States 1986	United States 1995	United States % Gain[b]
Market Income	*29 520*	*36 409*	*23.3*	*30 948*	*35 448*	*14.5*	*15 564*	*16 415*	*5.5*
Earnings	22 782	29 262	28.4	28 794	32 791	13.9	14 025	14 929	6.4
Asset income	621	625		170	415		289	1 017	
Other income	6 117	6 552		1 984	2 242		1 250	469	
Impact of Government	*–9 823*	*–12 934*	*–31.7*	*–6 396*	*–8 936*	*–39.7*	*–2 010*	*–976*	*51.4*
Transfers	4 277	2 006		1 761	2 004		389	160	
Taxes	–14 100	–14 940		–8 157	–10 940		–2 399	na[c]	
Post-Government Income	*19 697*	*23 475*	*19.2*	*24 553*	*26 512*	*8.0*		*15 439*	*13.9*

[a] Constant (1986) guilders, marks, dollars.
[b] Only shown for major components of income.
[c] See note c, Table 3. The implied average tax was $1136.

Source: Authors' calculations.

such a way to make little difference to the final outcome. No government sought to redistribute income away from people who occupied the top earnings quintile.

In the United States, the mean market income of households in the highest income quintile in 1995 was 18.8 percent higher and the median income was 9.2 percent higher than incomes of people in the top quintile in 1986. But the government's net taxes apparently fell by 72.6 percent, so that mean and median post-government income was 43.1 percent and 29.9 percent higher in 1995 than in 1986. In sum, these results confirm our expectation that inequality is less and has increased less in the Netherlands than in Germany or the United States.

Short- and Long-Term Inequality

A key point of the foregoing discussion is that inequality has increased substantially in all three countries. We next examine how inequality has changed in the short and long term.

So far, most of the evidence has been cross-sectional; a snapshot of 1986 and one of 1995. But most people's values would lead them to say that, if inequality matters at all, it matters much more in the medium and long term than in the short term. After all, if income mobility were so high that short-term income differences were transmuted into a much more equal distribution in the medium or long

Table 5

The Top Quintile: Real Equivalized Income Changes 1986–95[a] (Heads Aged 25–59)

Household Income	Netherlands 1986	Netherlands 1995	Netherlands % Gain[b]	West Germany 1986	West Germany 1995	West Germany % Gain[b]	United States 1986	United States 1995	United States % Gain[b]
Market Income	*67 237*	*78 099*	*16.2*	*65 056*	*76 377*	*17.4*	*45 404*	*53 921*	*18.8*
Earnings	53 418	61 182	14.5	57 956	64 806	11.8	38 982	42 678	9.5
Asset income	4 680	6 659		1 272	4 025		2 926	6 531	
Other income	9 139	7 258		5 828	7 546		3 496	4 712	
Impact of Government	*–28 113*	*–32 415*	*–15.3*	*–18 104*	*–22 269*	*–23.0*	*–9 565*	*–2 621*	*72.6*
Transfers	2 707	21[d]		1 592	1 911		290	53	
Taxes	–30 820	–32 436		–19 696	–24 180		–9 855	na[c]	
Post-Government Income	*39 124*	*45 684*	*16.8*	*46 953*	*54 108*	*15.2*	*35 839*	*51 301*	*43.1*

[a] Constant (1986) guilders, marks, dollars.
[b] Only shown for major components of income.
[c] See note c, Table 3. The implied average tax was $2674; an estimate which seems implausibly low given official tax rates on high incomes.
[d] This result has been derived from the data on pre- and post-government income and taxes, not independently from the file data on transfers.

Source: Authors' calculations.

term, then many people would judge that this outcome was satisfactory and that the fruits of growth were being reasonably fairly shared.

International comparisons of income mobility raise a number of conceptual issues. These include whether one should focus only on changes of relative position in the income distribution or account for absolute differences in the dollar amounts needed to change position in different countries. The focus on absolute differences is relevant if income is dispersed more widely in one country than another. In such a case, it takes a bigger absolute gain or loss in income to shift, say, 10 percentiles up or down the distribution. We now assess short, medium and long term (one-, five- and ten-year) inequality in the three countries. The five and ten year measures are simply based on cumulating each person's equivalent incomes over the relevant period. Our preferred measure is Theil-0 (the mean logarithmic deviation); a measure that gives roughly equal weight to the top and bottom ends of the income distribution and can be decomposed to analyze how incomes of particular subgroups of the population contribute to measured inequality.

Income inequality is considerably lower over five and ten years than on an annual basis, but the differences are less in the United States than in Germany and less in Germany than in the Netherlands. Relative to those countries, the dispersion of income in the Netherlands is not only more equal on an annual basis, it is more equal still on a longer term basis, because there is less volatility of market incomes and greater redistribution by government in the Netherlands. As measured by Theil-0, Dutch market incomes for prime age households are only half as unequal over ten years as on an annual basis (Theil-0 drops from 0.260 in 1986 to 0.134 in 1986–95). Government action (taxes and transfers) reduce the Theil-0 measure of inequality by more than half (58 percent) on both an annual and a ten-year basis.

The United States has the most unequal distribution on an annual basis and the international difference is magnified over ten years. The Theil-0 measure of inequality is only about 25 percent less on a ten-year basis than annually and government redistribution reduces this measure of inequality by around 20 percent. In Germany, dispersion in income is about one-third lower over ten years (Theil-0 falls from 0.218 to 0.148) relative to a single cross-section and government redistribution slices a further 45 percent off the Theil-0 measure of inequality over the period of a decade.

In all three countries, measured inequality was higher on both a pre- and a post-government basis in the second half of the decade than the first; the increase in the United States being much larger than in the European countries. Measured inequality in post-government income in the United States increased by over 50 percent between 1986 and 1995 and by 25 percent in the second five-year period, compared with the first.

5. Discussion

This paper has reviewed how the fruits of economic growth are shared in countries that can be regarded as leading exemplars of the three types of welfare capitalism. All three countries have had good rates of economic growth in the last ten to fifteen years, both absolutely and compared with other Western countries. We have found that the fruits of growth have been much more equally shared or, to be more accurate, less unequally shared in social democratic Netherlands than in corporatist Germany or the liberal United States. In all three countries, government still redistributes from upper income groups to lower income groups, but market trends and, in Germany and the United States, a reduction in governmental redistribution are generating increased inequality.

Table 6

Income Inequality: Pre- and Post- Government: 1, 5, and 10-Year Results for Persons in Households with Heads Aged 25–59 (Theil-O)[a]

	Netherlands			West Germany			United States		
	Pre-Government	Post-Government	Reduction by Government %	Pre-Government	Post-Government	Reduction by Government %	Pre-Government	Post-Government	Reduction by Government %
1 year									
1986	.260	.110	57.7%	.218	.140	35.8%	.300	.227	24.3%
1995	.295	.121	59.0%	.223	.158	29.1%	.426	.350	17.8%
5 years									
1986–90[b]	.164	.067	59.1%	.190	.091	52.1%	.302	.202	23.1%
1991–95[b]	.179	.078	56.4%	.191	.105	45.0%	.313	.253	19.2%
10 years									
1986–95[b]	.134	.056	58.2%	.148	.081	45.3%	2.64	.204	22.7%

[a] Theil-O is the mean logarithmic deviation of incomes.
[b] Inequality of incomes summed for the period.

Source: Authors' calculations.

The principal cause or driver of increased inequality seems to be the labor market, apparently because it is generating increased returns to human capital. Asset incomes are also becoming more unequal. The result has been that the whole income distribution has tilted upward in favor of higher income groups. Atkinson (1999) calls this the 'tilt hypothesis.' Others, more sensationally, have written about the disappearing middle class. In any event, whether viewed in a single cross-section or over a longer period of five or ten years, inequality has increased. One implication of our results is that the trickle-down theory, that a rising economic tide lifts all boats, has not resulted in a more equal distribution of income in recent times. This is contrary to Kuznets' (1955) theory and also contrary to the practical experience of the decades immediately following World War II.

The Dutch government has partly counteracted labor market trends both through a wage policy that reduces earnings differentials and by redistribution through the tax and transfer system. This redistribution has benefited the bottom quintile but has not prevented increased dispersion in the overall income distribution. In Germany and the United States, on the other hand, government has done little to counteract labor market trends, and in the United States the increase in disposable income inequality has been substantial.

It is probably reasonable to conclude that a major reason for the differences in policy and outcomes among the three countries relate to the values or ideological positions underpinning government policies in the three types of welfare capitalism.

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