SOCIOECONOMIC INEQUALITIES IN THE WORLD SOCIETY: TRENDS AND REGIONAL VARIATIONS, 1950-1998

Nico Wilterdink, *University of Amsterdam*

Rob Potharst, *Erasmus University Rotterdam*

Paper for the Conference of the Research Committee on Social Stratification (RC28) of the International Sociological Association, Berkeley, 13-16 August 2001

Introduction

It is commonplace to say that the world today is characterized by huge and increasing socioeconomic inequalities. Where most inhabitants of the world's privileged countries live in unprecedented affluence, hundreds of millions of people in the rest of the world are deprived of the most basic means of existence; and this gap between the rich and the poor continues to widen. This is the message spread by popular media as well as, much more extensively, authoritative reports such as the United Nations *Human Development Report* published every year since 1990. The 1996 UN report mentions, for example, that 'the poorest 20% of the world's people saw their share of global income decline from 2.3% to 1.4% in the past 30 years. Meanwhile, the share of the richest 20% rose from 70% to 85%. That doubled the ratio of the shares of the richest and poorest - from 30:1 to 61:1' (UNDP 1996: 2).

The academic literature on the topic is less equivocal. Some authors affirm that world income inequality grew steadily and strongly in the second half of the twentieth century; others see little change; and still others even observe a dominant tendency of convergence between the rich and the poor countries (see for a summary of the debate Korzeniewicz and Moran 1997: 1000-1006).

A recent study by Korzeniewicz and Moran (1997) confirms the view that income disparities at the world level grew dramatically in the last decades. Their calculations indicate a clear and continuous increase of world income inequality from 1965 to 1990, which was particularly strong after 1980.

The present paper enters into in this debate and, in particular, takes issue with Korzeniewicz' and Moran's findings. By presenting new estimates for the years 1950-1998 it will show that the development of socio-economic inequality on the world level in the second half of the 20th century cannot be simply defined as one of a continuous upward trend, nor as one of stability or convergence. It will appear that there are appreciable fluctuations over time, and that the over-all changes in global inequality depend on highly divergent trends in different world regions. In the final section these findings are interpreted from a long-term, historical-sociological perspective.

World income inequality 1950-1998

Trends in international (between-country) inequality

On the basis of World Bank data on per capita Gross National Product (GNP) of 121 countries Korzeniewicz and Moran (1997: 1021, Table 3) calculated that the share of the 20% of the world population in the poorest countries in total world income declined from 2.25% in 1965 to 1.65% in 1980 and further to 1.38% in 1990. The share of the 20% in the richest countries, on the other hand, rose from 69.50% in 1965 to 75.38% in 1980 and further to 83.44% in 1990. The ratio of the shares of the richest and the poorest 20% thereby almost doubled: from 31 in 1965 to 60 in 1990. The Gini coefficient of inequality increased from 0.658 in 1965 to 0.682 in 1980 and 0.740 in 1990.

Our own calculations for 1998, based on the same type of data, show a continuation of this trend. The share of the 20% of the world population in the poorest countries further declined to 1.24% of total world income, the share of the 20% in the richest countries rose to 84.83%, which means that the ratio between the two attained the new historical record of 68. The Gini coefficient rose to 0.747.[1]

These calculations are based on GNP estimates according to the official exchange range, and therefore do not take into account the substantial price level differences between countries. Poor countries are in general much cheaper than rich countries, i.e. with the same amount of dollars much more goods and services can be bought. If we take this into account and correct the GNP data on the basis of estimates of purchasing power parities (PPP), the outcomes for world income inequality become quite different. Korzeniewicz and Moran defend their choice for official exchange rates by stating that GNP per capita at international market prices 'itself provides a better relational indicator of command over income, or the relative command that inhabitants of different countries have "over the human and natural resources" of each other' (p. 1011, italics deleted). This may be true when our concern is the relative 'strength' of national economies as such, taken as undifferentiated wholes; it is hardly relevant when we are interested in the differences in people's actual living conditions. For this purpose PPP estimates are a much better indicator, however rough and approximate these estimates are (adding the uncertainty of price level comparisons to the uncertainty of GNP estimates).

Therefore, we have chosen for PPP estimates as the basis for an assessment of trends in world income inequality. Table 1 presents calculations of the degree of international (between-country) income inequality on this basis for the period 1950-1998.[2]

Table 1

International per capita income inequality (PPP), 1950-1998.

Year	D1	Q1	H1	50-80	Q5	D10	D10/D1	Gini	Theil
1950	2.4	5.2	14.2	26.4	59.4	40.1	16.6	0.530	0.500
1960	2.1	4.8	14.1	27.7	58.2	36.6	17.2	0.524	0.477
1970	1.9	4.2	12.7	26.6	60.6	36.2	19.1	0.544	0.515
1980	1.6	3.7	12.7	26.5	60.8	37.0	23.5	0.550	0.525
1990 (a)	1.4	3.9	16.1	23.0	60.9	38.8	27.1	0.531	0.504
1990 (b)	1.7	4.0	14.4	24.4	61.2	39.2	23.7	0.545	0.525
1998	1.4	3.9	15.5	20.0	64.5	41.7	30.7	0.553	0.564

D1: share of 10% with lowest incomes in total world income;
Q1: share of 20% with lowest incomes in world income;
H1: share of lower-income half of world population in total world income;
50-80: share of poorest 30% of the upper-income half of the world population;
Q5: share of 20% with highest incomes in total world income;
D10: share of 10% with highest incomes in total world income.
Number of units (countries): 113 in 1950-1990(a), 120 in 1990(b) and 1998.
Sources and calculations: see note 2.

The table allows for the inference that international income inequality did increase in this period, though less outspoken than was inferred from calculations on the basis of per capita GNP according to the exchange rate. The clearest indications of this trend of growing inequality are the continuously declining share of the 10% of the world population in the poorest countries in total world income (D1), and the continuously increasing ratio of the shares of the richest 10% and the poorest 10% (D10/D1). In other words, the inhabitants of the poorest parts of the world have become on average still poorer in comparison to the rest of the world, and the wealth gap with the inhabitants of the richest areas of the world, which was already very large in 1950, has grown ever wider since then.

The trend becomes less clear, however, when we take income levels other than the highest and the lowest into account. According to the Gini coefficient, a measure of inequality which includes all income levels and is particularly sensitive to shifts in the middle income levels, international inequality decreased in the 1950s, increased in the 1960s and 1970s, decreased the 1980s and increased again after 1990. The same holds true when inequality is measured by the Theil coefficient. Over the period as a whole inequality grew to some extent - rather slightly in terms of the Gini, more strongly as expressed by the Theil coefficient.[3]

In sum, international income inequality as measured by the coefficients of Gini and Theil did not increase continuously in the second half of the 20th century, but exhibited quite irregular fluctuations over time. It is particularly the *decrease* of over-all international income inequality in the 1980s combined with ongoing polarization which asks for a specific explanation. In this decade the real per capita incomes in many African and Latin American countries declined, partly as the result of their huge foreign debts. Several of the world's poorest countries were among them, most of them located in Sub-Saharan Africa. This resulted, as Table 1 shows, in a decrease of the share of the aggregate income of the 10% of the world population in the poorest countries in total world income (D1) as well as a further polarization of income levels between the richest and the poorest countries (D10/D1).

It was in this same decade however that large parts of Asia and China in particular witnessed a strong economic growth. Whereas real per capita world income in the 1980s, according to estimates by Maddison (1995), slowed down to 2.2% per year, China's yearly growth rate accelerated to 6.4%. Though the exact figures in various reports on the Chinese development differ considerably (cf. note 2), they agree on China's spectacular growth of production and consumption since the 'capitalist' reforms of 1978 and subsequent years (cf. Kahn & Riskin 1998). It meant that more than one-fifth of the world population saw its average income rise in comparison to both the very poor countries and the very prosperous. The position of the average Chinese on the global income ladder rose from a place among the poorest twenty to forty percent of the world population in 1980 to one near median world income in the 1990s. Other large and poor Asian countries, like India and Indonesia, also witnessed a relatively strong economic expansion in the 1980s, and this too contributed to the overall decrease of global income inequality in this decade.

In the 1990s the income polarization between the richest and the poorest countries continued. Now it went hand in hand with an overall increase of global income inequality as measured by the Gini and Theil coefficients. China's economic growth did not compensate any longer for polarization, as this growth slowed down in the 1990s and China's position had shifted to the middle-income levels.

Table 2

International per capita income inequality (PPP) in the world as a whole, the world except China, the world except Sub-Saharan Africa, and the Third World; Gini coefficients, 1950-1998

Year	World	World except China	World except Africa	Third World
1950	0.530	0.508	0.526	0.292
1960	0.524	0.503	0.518	0.299
1970	0.544	0.520	0.535	0.325
1980	0.550	0.533	0.538	0.375
1990 (a)	0.531	0.553	0.511	0.326
1990 (b)	0.545	0.546	0.530	0.349
1998	0.553	0.580	0.531	0.365

Sources and calculations: see note 2.

China's impact appears clearly when we estimate world inequalities with this country left out. As is shown in Table 2, the Gini coefficient of international income inequality *without* China declined only slightly in the 1950s (from 0.508 to 0.503) and rose continuously since then; in the 1980s it increased from 0.533 (1980) to 0.550 (1990), and in 1998 it had increased further to 0.580. In other words, with China left out the increase of international income inequality is more continuous and much stronger. Whereas China contributed to world income inequality until well into the 1980s, since then it has a mitigating effect on world inequality.

A contrary effect on the development of international inequality came from Sub-Saharan

Africa. The relative or even absolute economic decline of this region in combination with high population growth strongly enhanced international inequality. As Table 2 shows, world inequality does not increase or hardly increases from 1950 to 1998 when Sub-Saharan Africa is left out. While contributing to world income inequality in all the years since 1950, the region increased its impact substantially in the course of time (as can be seen by comparing the first and the third column of Table 2: the differences between the Gini's of the world as a whole and of the world minus Sub-Saharan Africa steadily grew larger - from only 0.04 in 1950 to 0.22 in in 1998). The tendencies of a declining share of the 10% of the world population in the poorest countries (D1) and of an ever-widening gap between the wealthiest and the poorest 10% of the world population (D10/D1), noted in Table 1, disappear for the years since 1980 when Sub-Saharan Africa is left out. The share of the poorest 10% in total world income in 1998 rises then from 1.4% to 2.1%, the polarisation ratio D10/D1 is reduced from 30.7 to 19.0. Between-country income inequality in the world minus Sub-Saharan Africa is still very high, but less so, and has been fairly stable in the past three decades.

International inequalities between and within regions

It follows from this analysis that specific developments in very large countries and world regions have a substantial if not decisive impact on the over-all trend in international inequality. The over-all trend reflects the combined effects of developments in different parts of the world, which do not necessarily work in the same direction. In order to elaborate this assumption more systematically, we have categorized the world population[4] into eight blocs or regions on the basis of both geographical proximity and historical and cultural connections:

1. Western countries: Western Europe, North America, Australia, New Zealand;
2. Eastern Europe: the former communist states of Europe, including the Asian part of the former Soviet Union;
3. Japan;
4. China (including Hong Kong; Taiwan not included);
5. Asia apart from China, Japan, the Middle East, and the Asian part of the former Soviet Union;
6. The Middle East and North Africa;
7. Sub-Saharan Africa;

8. Latin America.

International income inequality can now be conceived as the sum total of the inequality between these blocs or regions and the inequalities between the countries within each bloc. Table 3 shows the relative importance of both types of inequality for over-all inequality on the basis of Theil coefficients.

Table 3
International (between-country) income inequality: total, between regions, and within regions; Theil coefficients, 1950-1998

Year	Total	Between regions	Within regions
1950	0.500	0.428 (86%)	0.072 (14%)
1960	0.477	0.429 (90%)	0.048 (10%)
1970	0.515	0.475 (92%)	0.040 (8%)
1980	0.525	0.480 (91%)	0.045 (9%)
1990 (a)	0.504	0.450 (89%)	0.054 (11%)
1990 (b)	0.525	0.468 (89%)	0.057 (11%)
1998	0.564	0.496 (88%)	0.068 (12%)

Number of regions: 8; number of countries: 113 (1950-1990a), 120 (1990b, 1998).
Sources and calculations: see note 2.

As can be seen in this table, the international income inequality in 1950-1998 is mainly - for about 90% - explained by inequality *between* the regions. The relative importance of the interregional inequality even increased in the 1950s and 1960s and hardly diminished since then. This also means that the increase of international income inequality in 1950-1998 is largely explained by the increase of inequality between the regions. Conversely, the same holds true for the temporary decrease of inequality in the 1980s.

Inter-country inequality *within* the regions diminished in 1950-1970 and grew slowly again since then. This general observation hides considerable variations and contrary movements in different regions, as can be seen in Table 4.

Table 4
Between-country per capita income inequalities (PPP) within regions; Gini coefficients, 1950-1998

Year	WE	EE	AS	ME	AF	LA
1950	0.230	0.090	0.122	0.208	0.311	0.265
1960	0.161	0.083	0.162	0.237	0.313	0.235
1970	0.117	0.069	0.214	0.306	0.340	0.224
1980	0.104	0.041	0.298	0.238	0.344	0.165
1990(a)	0.096	0.073	0.328	0.225	0.339	0.149
1990(b)	0.120	0.051	0.302	0.218	0.396	0.146
1998	0.108	0.165	0.298	0.272	0.427	0.183

WE: Western countries; EE: Eastern Europe and (former) Soviet Union; AS: Asia except Japan, China, Middle East and Asian part of former Soviet Union; ME: Middle East; AF: Sub-Saharan Africa; LA: Latin America. Sources and calculations: see note 2.

The decrease of within-region/between-country inequality in the 1950s and 1960s is largely due to the considerable diminishment of inequality between the countries of the Western part of the world, where Western Europe witnessed historically unprecedented rates of economic growth and came to approximate Northern American levels of prosperity. After 1970 this movement slowed down, and changes in other regions as a consequence became relatively more important. It was in particular the growing divergence among Asian countries which contributed to the general trend of increasing inter-country inequality. Some of these countries (Bangladesh, Burma) stagnated in poverty, other ones (Korea, Taiwan, Singapore, to a lesser extent Malaysia) were quickly transformed from agrarian to highly industrialized and commercialized societies, whereas big and populous countries like India and Indonesia witnessed an insecure process of industrialization and income growth. In Sub-Saharan Africa too the economic fate of states was widely divergent; the growth of poverty noted above did not apply - and not to the same extent - to all countries of the region. A strong divergence in economic development took place, moreover, in Eastern Europe after the fall of communism and the dissolution of the Soviet empire. These movements taken together brought about an increase of between country/within region inequality after 1970.

As appeared from Table 3, however, the differences in average income between the regions are much more important than those within the regions, and the over-all changes in international income inequality are largely explained by differential regional developments. Table 5 presents data on the relative income positions of the regions (compared to per capita world income) and their development.[5]

Table 5
Relative per capita incomes in world regions, PPP estimates, 1950-1998 (per capita world income = 100)

Year	WE	EE	JA	CH	AS	ME	AF	LA
1950	299	122	087	029	032	061	037	117
1960	305	133	139	032	031	058	034	110
1970	322	138	251	029	031	059	031	104
1980	337	139	290	033	031	072	027	115
1990	355	130	352	047	037	074	025	094
1998	384	065	372	053	038	079	023	108

WE: Western countries; EE: Eastern Europe and (former) Soviet Union; JA: Japan; CH: China; AS: rest of Asia/Oceania; ME: Middle East and Northern Africa; AF: Sub-Saharan Africa; LA: Latin America.
Sources and calculations: see note 5.

This table gives a specification of the observed trend of polarization. As can be inferred, the per capita income ratio of the richest region (the West) and the poorest one (in 1950 China, since 1980 Sub-Saharan Africa) increased from 10.3 in 1950 to 16.7 in 1998. The table shows that the Western societies not only maintained but substantially improved their privileged position with respect to the rest of the world. The only large non-Western society that joined the elite of prosperous countries was Japan which moved from a middle-income position in 1950 (per capita income below average world income) to a prosperity level equal to that of the West. Sub-Saharan Africa, on the other hand, saw its position steadily decline. While the developments in these regions at the extremes of the world income scale brought about growing international inequality, China's absolute and relative economic growth since the 1970s had a mitigating effect on this trend and even caused, as we have seen, a decrease of world inequality in the 1980s.

The other regional developments are more variable and their impact on world inequality has been less outspoken. The relative income position of Eastern Europe did not change much compared to average world income until the end of the 1980s (though it began to lag behind the West in the 1960s), but declined severely after the dissolution of the communist system. Not all postcommunist countries are on this path of deterioration, however; as noted (Table 5), economic developments in this region widely diverge, dependent on the degree of internal state integration as well as the degree of successful external integration into Western capitalism.

Asia (as defined here) saw its relative position improve somewhat after 1980. This in itself contributed to decreasing income inequality on the world level, which however was counteracted by the simultaneous increase of between-country inequality within the region. The Middle East also improved its relative income position, partly thanks to growing oil revenues. Latin America's relative income position fluctuated over time; it declined in the 1950s and 1960s, went up in the 1970s (when impressive industrialization programs in countries like Brazil seemed quite successful), declined again in the 1980s (when these same programs often ended in failures and foreign debts burdened the economy), and again improved somewhat in the 1990s. In the period as a whole Latin America maintained a middle position, near average world income.

This short overview confirms and specifies the proposition that trends in world income inequality should be conceived primarily as the outcome of diverging developments in culturally and historically different world regions. This does not mean that differences between countries within one region can be neglected. Besides, there is another important source of global income inequality which has not been dealt with till so far: the income variations within countries.

Income inequalities within countries

In the present-day world the socioeconomic inequalities between world regions and countries are in general sharper and more striking than those within countries. The Gini coefficients of the inequality of personal incomes in the 1990s vary for most countries between 0.25 and 0.40, which is much lower than the Gini of international income inequality as presented in Table 1. There are however notable exceptions; according to recent data, the Gini coefficients of income inequality of several countries in Latin America (Brazil, Chile, Colombia, Mexico, Paraguay) and Africa (South Africa, Zimbabwe, Sierra Leone) are above 0.5 and approximate or even surpass the Gini of international income inequality based on PPP estimates.[6]

In the period from 1950 until about 1980 the dominant trend within countries was probably one of decreasing income differences. This at least was true for the highly industrialized, prosperous nation-states. Around 1980 a reversal of this trend set in; income differences grew considerably in most highly industrialized societies in the 1980s, though this trend did not always continue in the 1990s (cf. Wilterdink 2000). Income inequality increased sharply in postcommunist societies, particularly in Russia and other countries of the former USSR (Milanovic 1998). In China, too, incomes diverged quite strongly after the 'capitalist' reforms since 1978 (Kahn et al 1992; Kahn & Riskin 1998). In most Latin American countries huge income disparities grew even wider in the 1980s. India, Indonesia and other South Asian countries on the other hand as well as many Middle-Eastern and African countries witnessed, according to World Bank statistics, a decrease of income inequalities in the 1980s, followed by an increase in the 1990s.[7] In sum, though the trends in this respect have been highly variable in time and place, the dominant tendency in the last two decades of the 20th century seems to be one of increasing internal income inequality.

Global income inequality: between-country and within-country inequalities combined

By combining data on GNP/PPP per capita of different countries with data on the distribution of family incomes within countries we get an idea of the *global income inequality*, ranging from the poorest people in the poorest countries to the upper layers of the richest. World Bank data on the shares of the five population quintiles (20% groupings) and the two upper deciles (10% groupings) in the total income of a given country as well as data from other sources have been used for this purpose.[8] Where the relevant data for a given country were not available, the quintile and decile shares have been estimated by calculating the averages of socio-economically similar countries in the same region for which the data were available. In this way, the average incomes of six income classes in each country (the two upper deciles and the four other quintiles) and the share of each of these categories in total world income could be calculated for three years, 1980, 1990 and 1998 (the available data were not sufficient to go further back in time).[9] The world population in 1998, for example, has been divided into 6 x 120 = 720 income classes, ranging from the lowest quintile of Sierra Leone (average yearly income 21.5 dollars) to the upper decile of the USA (average income 89487 dollars). Such figures in itself are hardly informative, as they are based on imprecise, often quite rough estimates of GNP's, PPP's and (the least reliable of all) within-country income distributions. Taken together, however, they provide a basis for estimating global income inequality and its change over time. Table 6 presents the outcomes for 1980-1998.

Table 6
Global income inequality (between and within countries), 1980-1998; shares of percentile groups in total world income (in percentages), ratio of shares of richest and poorest 10% of world population (D10/D1), and Gini and Theil coefficients

Year	1980	1990(a)	1990 (b)	1998
Poorest 10% (D1)	0.7	0.8	0.9	0.8
Poorest 20%	2.0	2.3	2.2	2.2
2nd 20%	4.1	4.6	4.4	4.2
Poorest half	9.3	10.4	9.8	9.4
3d 20%	7.6	8.3	7.8	7.2
4th 20%	18.3	17.1	16.5	16.1
Richest 20%	68.0	67.6	69.1	70.3
Richest 10% (D10)	47.9	49.3	50.2	51.4
D10/D1	66.2	60.0	59.0	63.3
Gini coefficient	0.633	0.624	0.635	0.648
Theil coefficient	0.734	0.730	0.758	0.809

Sources and calculations: see text and notes 2, 6-9.

As the comparison between Tables 1 and 6 shows, within-country inequality contributes considerably to total global income inequality. The share of the poorest 10% of the world population in total world income is now less than 1% (instead of 1.4 to 1.7%), the share of the poorest 20% is hardly more than 2% (instead of about 4%), whereas the poorest half receives 10% or less. The richest 10% gets about one-half of total world income, the richest 20% more than two-third. The ratio of average income of the richest and the poorest 10% varies in the given years from 59 to 66, more than twice the value for mere international (between-country) inequality.

The most precise way to assess the contribution of within-country income inequalities to global inequality is to compare the Theil coefficients of Table 1 and Table 6. The Theil values for global inequality (Table 6) can be conceived as the sum total of the values for between-country inequality (Table 1) and those for within-country inequality. It appears then that the Theil for within-country inequality increased from 0.209 in 1980 to about 0.23 in 1990 and further to 0.245 in 1998, which comes to 28.5%, 31% and 30%, respectively, of total (global) inequality. In other words, almost one-third of global income inequality can be attributed to the inequality within countries.[10] A further specification is given in Table 7, which presents global inequality as the sum total of three component inequalities: between regions, within regions/between countries, and within countries.

Table 7
Theil coefficients of global inequality and its components, 1980-1998; in absolute numbers and percentages

Year	Between regions	Within regions, between countries	Within countries	Global inequality (total)
1980	0.480 (65.3%)	0.045 (6.1%)	0.209 (28.5%)	0.734 (100%)
1990 (a)	0.450 (61.6%)	0.054 (7.4%)	0.226 (31.0%)	0.730 (100%)
1990 (b)	0.468 (61.7%)	0.057 (7.5%)	0.233 (30.7%)	0.758 (100%)
1998	0.496 (61.3%)	0.068 (8.4%)	0.245 (30.2%)	0.809 (100%)

Despite the important effect of within-country inequality on global inequality, changes in the first variable do not have a strong impact on changes in the latter, at least as far as the period

1980-1998 is concerned. Changes in global inequality as measured by the Gini and Theil coefficients ran more or less parallel with those in international inequality; both decreased in the 1980s and increased again in the 1990s. This does not take away that changes in the domestic income distributions weakened the tendency of decreasing inequality in the 1980s and reinforced the increase in the 1990s; the decrease of global inequality in the 1980s even almost amounts to zero – to stability – according to the Theil coefficient. Several researchers have noted that the increase of international inequality in the 1960s and 1970s was compensated by an over-all decrease of internal inequality (e.g. Sprout & Weaver 1992: 253, 255). For the 1980s the opposite can be observed. Here again China played a significant role: its impact as equalizer on the global level was weakened by the simultaneous growth of income differences within this country. In the 1990s the further increase of inequality in China as well as in other large countries (Russia, India, Indonesia, the USA) reinforced the growth of global inequality.

Surprisingly, the tendencies of a continuous decline of the share of the poorest countries (10% of the world population) in total world income and polarization between the richest and the poorest countries, noted for international inequality in the whole period 1950-1998, is not confirmed for the 1980s when changes in within-country inequality are taken into account. This can be explained by the fact that in the majority of the poorest countries, mainly located in Sub-Saharan Africa, there has been - according to the World Bank statistics - a tendency of decreasing income differences in this decade.

By dividing the population of each country into six income classes, we can also get some idea of the degree of overlap or non-overlap between the populations of different countries in their material position. The lowest quintiles (20% income groups) of all the twenty-one OECD countries in the 1998 list (twenty Western countries and Japan) except two, Greece and New Zealand, have average incomes which make them belong to the most prosperous 30% of the world population; all except three (Portugal in addition) belong to the most prosperous 25%; and eleven belong to the most prosperous 20%. The weighted average income of these 21 lowest quintiles is 8605 dollar, which is far more than the average world income of 6221 dollar and more than four times the median world income of 2150 dollar. The average incomes of the upper deciles (10% groups) of 45 countries (out of 120) are lower than this average, and in 29 countries they are even lower than the average income in the lowest quintile of the least prosperous OECD country, Greece. These countries include many states in Sub-Saharan Africa and South Asia.[11] We may conclude that the metaphor of the 'gap between rich and poor countries' has a justification in the statistical data, though there is no simple dichotomy.

Other indications of socioeconomic inequality: food consumption and life expectancies

Incomes, even if they are measured reliably, are not the only indicators of material welfare and they do not cover all its aspects. A given income means different things for different people in different situations. Per capita income growth in a given country may mean that elementary living conditions (food, housing, health conditions) improve, but also that certain groups are forced to use more money for their survival (e.g. when hunter-gatherers become agriculturalists, or agriculturalists become urban workers), or that the upper strata consume more luxury goods, or that the government spends more money on weapons and impressive buildings. Growing income disparities within or between countries may mean that differences in elementary living conditions and survival chances of various groups increase, but also that these groups only diverge in the consumption of status goods.

In most areas of the world some per capita economic growth has taken place in the second half of the 20th century. While populations expanded, the production and consumption of all kinds of goods, including food, in general grew even more. This also applies to the 'underdeveloped' or 'developing' countries. It was particularly in these countries that improvements in sanitary conditions and health care (with the help of international organizations like the WHO) brought about a substantial reduction of mortality rates.

International inequalities in elementary living conditions - as indicated by food consumption and life expectancy - have, on the whole, decreased in the last three decades of the 20th century, after they had strongly increased in the two-hundred years before. According to UN data, food consumption as measured by daily calories intake grew with 18% per capita in the world as a whole and with 23% in the 'developing' countries between 1970 and 1996. Whereas in 1970 per capita food consumption in the prosperous, industrialized countries was still 40% higher than in the 'developing' countries, this gap was narrowed to 28% in 1996 (UNDP 1999: 214). The average life expectancy rose from 71.4 years in 1970 to 77.7 years in 1997 in the prosperous countries and from 54.5 to 64.4 years in the developing countries: this difference also diminished (ibid.: 171; cf. Ram 1992). The latter development is partly explained by a drastic reduction of infant mortality, but for people in poor countries who attain the age of five the average life expectancy also rose considerably: from about 65 years in 1970 to 71 in 1997 (compared to a rise from 73 to 78 years in the rich countries).[12] In these respects too, however, the picture becomes more complicated when we consider specific areas. In the same period food deprivations increased in many African and a few Latin American countries. In Sub-Saharan Africa as a whole a low level of per capita food consumption further declined, making the difference with the rest of the world even larger. Parts of the former Soviet Union too had to deal with increasing food shortage after 1989 (UNDP 1999: 212-214). While hunger and starvation risks decreased in the world as a whole, they increased in some areas.

Something similar - and connected to the food situation - happened with mortality risks. Life expectancies did not rise everywhere. They declined between 1970 and 1997 in seven African countries, from 46.1 years on average at the beginning of this period to 41.9 years at the end.[13] Given the fact that infant mortality continued to decrease, the increase of death risks for older children and adults was even more dramatic. Average life expectancy also fell in the former Soviet Union, from slightly above 70 years to well below that age. This development was connected to the deterioration of health care which started already in the 1970s (and was symptomatic of growing organizational problems under the communist regime) and, since 1989, the spread and aggravation of poverty as a result of both economic decline and increasing material inequality. The shortening of life expectancies in the African countries is also connected to growing poverty; but here a more specific cause is the aids epidemic which has infected growing proportions of the population since the 1980s. Poverty increases the infection risks (if only because of the lack of means of prevention and of information on preventive measures) and blocks effective ways of combating the disease (if only because of the high costs of medicine until now). The aids virus has become a new source of inequality of survival chances in the world, whose differential spread is causally related to pre-existing socio-economic inequalities and in turn reinforces these inequalities.

Empirical conclusions

The data presented in this paper confirm to some extent the thesis of an ongoing increase of inequality on the global scale. The share of the poorest countries in total world income declined, the gap between the richest and the poorest countries widened, and international and global income inequality increased in the second half of the 20th century. Never before in the history of mankind were the differences in the acquisition, possession and consumption of goods as huge as in the present age.

Yet this general conclusion needs some qualifications. Our findings do not indicate that socioeconomic inequality increased continuously and in all respects since 1950. The international income inequality expressed in general indices decreased in certain subperiods, in particular the 1950s and the 1980s. Secondly, the trends become somewhat different when income differences within countries are taken into account. As these tended to diminish in the period 1960-1980, they probably had a weakening or perhaps even annihilating effect on the growth of global inequality in this period; on the other hand, a contrary tendency after 1980 (though with much variation in time and place) mitigated the decrease of over-all income inequality in the 1980s and reinforced its increase in the 1990s. And thirdly, when we consider important aspects of socioeconomic position not completely covered by money income, namely basic life chances as indicated by food consumption and life expectancy, we observe an over-all decrease of international inequality: the gap between the 'developed' and 'developing' countries in these respects narrowed, though this did not apply to all countries of the latter category.

It is particularly the strong differentiation of regional developments which forbids any simple generalization. The importance of the development of specific regions for the global outcomes appears when these are compared with the outcomes for the world with any of those regions left out. Without China, for example, there is a stronger and much more continuous increase of international inequality since 1960; without Sub-Saharan Africa on the other hand, there is no polarization of incomes in the 1980s nor a clear increase of global inequality in the 1990s. China's economic growth since the 1970s, which had an equalizing effect on the international income distribution, can be put in the broader framework of a long-term upsurge of East and South Asia, starting with the industrialization and economic expansion of Japan, followed by the 'newly industrializing countries' (Taiwan, South Korea, Singapore, Hong Kong) and further extending to China and other 'underdeveloped' Asian countries, like Malaysia, India and Indonesia. (The recent Asian recession seems to be only a temporary deviation of this trend.) In Sub-Saharan Africa, on the other hand, the dominant trend since the 1970s is one of economic stagnation or even decline, which helps to explain the tendency of income polarization in the world as a whole; in spite of the decreasing life expectancies in several countries in this region population growth is, on the whole, very high (due to high birth rates and the effective reduction of infant mortality and some infectious diseases), which only adds to the obstacles for economic development. In Latin America, the development varies strongly between countries and over time; a phase of intensive industrialization and high growth in the 1970s was followed by a deep recession and economic decline in the 1980s, followed by a partial recovery in the 1990s. On the whole, this region's relative income position declined after 1950 compared to both the more prosperous societies of North America and Western Europe and the poorer societies of Asia. High and increasing internal income inequalities contributed here to the continuation and often aggravation of poverty.

Given the variation of regional developments and their crucial significance for global inequality, it seems necessary to look for specific, localized explanations focusing on the specificities of each region. This does not preclude, however, the importance of searching for an explanation on a more general level, since regional developments are interrelated (increasingly so in a globalizing world) and, secondly, any specific explanation involves general theoretical assumptions. In the next section of this paper we will suggest some building blocks for such a general explanation on the basis of two assumptions derived from historical sociology: the observed changes are a part of a long-term development; and income differences between interrelated groups and individuals are to be conceived as manifestations of power-dependence relations among these groups and individuals (cf. Elias 1978).

Discussion: suggestions for an explanation

How to interpret and explain the changes in the global distribution of income or - more broadly - material life chances? The extensive literature on the topic suggests various answers, but none which has a high degree of explanatory power. Korzeniewicz and Moran (1997) note a move toward 'theoretical consensus' concerning this question since the 1980s, both between disciplines (such as economics and sociology) and specific perspectives (such as institutional economics and world-system theory). Indeed, bridges between disciplinary and theoretical approaches have been built in recent years and debates tend to be less colored by the opposition between an ideological Left and Right; but this has not led to a satisfactory theory on which consensus has been reached. Korzeniewicz and Moran hardly give an idea of what such a theory might contain, and do not even sketch the roughest outline of an explanation for what they found to be the trend in the global income distribution between 1965 and 1990, the continuous and substantial growth of inequality.

A good candidate for explaining the trend of growing income inequality on the world level is the theory of the modern world-system as elaborated by Wallerstein and his school (Wallerstein 1974, 1979; Arrighi 1994). As we have tried to make clear however, the trend in world inequality since 1950 is not that unequivocal. World-system theory cannot explain, in particular, the strong divergence in economic development among the countries defined as the periphery of the world-system. An updated modernization theory might give a better explanation for this divergence, but this theory largely neglects the consequences of international power-dependence relations. We follow in this paper the world-systems theory in its long-term developmental perspective and its focus on international power-dependence relations, but take distance from its deterministic and functionalist features. The long-term view we take is, moreover, longer than that in the Wallersteinian approach, and can be called social-evolutionary (cf. Lenski et al. 1995, Sanderson 1995, Goudsblom 1996).

A long-term view

The huge material welfare disparities in the present-day world can be regarded as the outcome of a development stretching over ages in which inequality on the global level increased. In the *first stage* of this development there were no big material inequalities between and within human societies; people everywhere lived in small bands of hunters and gatherers near the survival minimum and had only few possessions. Driven by the search for natural resources, human groups spread over the globe, and as a consequence they came to live in very different natural environments in which they developed different cultures. This was the basic condition for the *second stage*, in which societies differentiated not only culturally but also in terms of power, production, and wealth. Decisive for this new stage was the transition to agriculture and pasture among certain groups - to begin in the Middle East, later in other areas - which set in motion a development of interrelated growth processes: growth of societies, organizations, and networks of interdependence, of production, material wealth, and power resources. This resulted, in the course of time, in large power and wealth inequalities within and between societies. The intersocietal wealth inequalities mainly pertained to elite groups; the larger and the more powerful the society, the richer in general these groups. For the majority of the population in different areas and societies, on the other hand, the living conditions were not very unequal; most people everywhere continued to live in conditions of poverty near the survival minimum, in which the chances for the acquisition and consumption of nonnecessary 'luxury' goods were low. The intersocietal inequalities in average or per capita income (in the wide sense of the term) were still not very large. In this sense one could hardly speak of rich and poor countries. Material inequalities within societies (particularly the large agrarian empires) were much larger than those between societies.

This started to change in the Modern Era, when European commercial expansion brought improvements in the standard of living of broad layers of the population in a few areas in Western Europe. Wealth differentiation between the West and the rest of the world population became more outspoken, however, with the transition to mechanical industry from the end of the 18th century onwards. In this *third stage* the accelerating growth of productivity and production in industrializing societies was slowly but steadily translated into rising incomes and consumption levels and more material security for the middle classes and subsequently the lower classes. In later phases of industrialization the material inequalities in these societies tended to diminish, which reinforced the growth of disparities with the inhabitants of other areas in the world. A global stratification came into existence in which the highly industrialized societies were not only more wealthy and powerful but also privileged its rank-and-file members far above the populations in the rest of the world. These societies as a whole tended to become the upper classes of the world society. Life chances were determined more and more by the country where one happened to be born in. In this sense geographical space became not less but more important.

The changes since 1950, described in this paper, can be regarded as a continuation of this long-term third-stage trend. Indeed, it was only in the decades following the Second World War that almost everyone in Western societies (and Japan) attained a standard of living far above the survival minimum and a material security which virtually eliminated fears of absolute poverty. It was only then that even the underprivileged in these societies came to belong to the materially privileged in the world society. Most data presented here confirm this.

Yet not all facts fit in this model. Firstly, as noted, international economic inequality did not increase continuously in this period nor in all respects. The poor in the world improved in general their survival chances absolutely and relatively, as indicated by food consumption, mortality and life expectancies. In this way the historical connection between poverty and growth of the population was reversed - the poorer the country, the higher now its rate of population growth. Secondly, the fast absolute and relative rise of incomes among the middle and lower strata of Western countries was particularly characteristic of the third quarter of the 20th century, and much less valid for subsequent years; in the last quarter of the century incomes tended to stagnate, diverge and become less secure, so that (relative) poverty reemerged and spread again. And thirdly, if we look more broadly at global social inequality, which comprises not only economic inequality but also international power and status relations, the picture becomes even more complex. The process of increasing global stratification which characterized the development of 'the modern world-system' since the 16th century was reversed, in certain respects, in the 20th century and particularly after the Second World War - witness the decolonization process, the growing international influence of many Third World states, and the delegitimation of feelings of white or Western superiority. The period since 1950 offers a mixed case for the assessment of trends in global social inequality.

Four basic mechanisms

In order to explain trends of increasing or decreasing socioeconomic inequality we propose four basic mechanisms: accumulation, exploitation, diffusion, and (increasing) interdependence.

1) *Accumulation* refers here to the mechanism by which power resources (in the broad sense) are accumulated through mutually reinforcing processes. Technological innovations, for example, lead to the growth of production capacity, which in turn creates favorable conditions for further technological change, and also leads to population growth, which makes the society in question more powerful by its sheer size (cf. Mann 1986). *Differential* accumulation among different societies means that initially small differences will grow in the course of time.

Processes of differential accumulation of power resources were basic to the development of global stratification. In some regions since the introduction of agriculture - initially determined by ecological conditions - change processes built upon one another in a cumulative development by which the societies in these regions increasingly diverged from other ones in terms of technological capacities and control of natural forces, production, size, internal differentiation and stratification, organizational centralization, and military power. When Europeans started to undertake their voyages to other continents, they had - driven by intense competition on different levels - accumulated a set of resources which gave them superior power in their confrontations with other people.

2) Whereas differential accumulation may occur among collectivities which do not have any relation with one another, *exploitation* involves a relation between groups with unequal power resources; the more powerful group gets returns from work done by the other, exploited group and thereby further accumulates power resources and privileges. Increasing inequality builds here on a relation based on an already existing inequality of power resources which is the result of differential accumulation. Exploitative relations were established in the course of history by military rulers, slave-owners, feudal lords, capitalist entrepreneurs, colonial states and other groups who had their property rights backed by organized violence. Since the 16th century, European colonial rule coupled with commercial expansion forced an increasing international division of labor which brought profits to merchant-entrepreneurs and shareholders in the European core states.

3) *Diffusion* refers here to the process in which power resources spread from a powerful to a less powerful collectivity. It is a selective process in a double sense: some resources are more likely to be taken over by a given collectivity than other ones, and some collectivities are more likely to take over a given resource than other ones. The likelihood of diffusion of power resources from one to another collectivity is determined by a) frequency of social interaction (partly determined by physical proximity), b) cultural similarities, and c) the power relations between the two collectivities: if these relations are very unequal, as between a colonial state and a colony, the diffusion tends to be highly selective, and predominantly determined by the needs of the powerful group. Diffusion, being the counterpart of differential accumulation, potentially leads to decreasing inequality, but this is not necessarily the case. Moreover, if diffusion leads to more equality among certain groups, this may imply more inequality within a wider framework. Thus, the diffusion of industrial production from Britain to the European continent and North America and later to Japan led to more equality between these regions but at the same time more inequality at the global level.

4) Increasing *interdependence* refers to the process by which, in a relationship of unequal power, the more powerful become more dependent on the less powerful: the interdependence

becomes less one-sided, and power inequality diminishes. This is the opposite of the exploitation process, though it may occur in a relation which could be characterized as exploitative. It is particularly in situations of strong competition among powerful groups that the powerful become more dependent on the less powerful as they need them for collective achievements.

When we apply this scheme to the second half of the 20th century, the following remarks can be made:

1) The accumulation mechanism points to deep historical roots of the present situation, a strong historical continuity. After two devastating wars in the 20th century Western Europe not only resumed but strengthened its privileged position in terms of economic prosperity even though it lost its colonies. Another, more hidden continuity may be detected in the recent economic expansion in Asia and particularly China; precisely the society which was probably far superior to the rest of the world from about 500 to 1500 in terms of accumulated power resources (technological knowledge, degree of literacy, production capacity, state organization, commercial practices) witnessed the fastest economic growth in the last two decades (cf. Frank 1998, Collins 2000). On the other hand, the economic decline in Sub-Saharan Africa pertains to societies which, due to specific ecological conditions, had accumulated relatively few power resources before European colonization - no intense forms of agriculture, no iron, horses and firearms, no bureaucratic organizations and writing systems (for the most part), no monetary economy, a low division of labor, no differentiation between the family and economic production (cf. Lenski and Nolan 1984). This changed in less than a hundred years with Western colonization and the subsequent formation of independent states, followed by rapid population growth and urbanization. But deep-ingrained sociocultural dispositions formed in the course of ages did not change that fast. The resulting relative lack of cultural capital in the international setting is presumably at least one factor in Sub-Saharan Africa's present plight.

2. A superficial comparison between former Western colonies (apart from the settler colonies in America and Oceania) and non-Western countries which were not colonized leads to the hypothesis that a historical past of colonial exploitation has a negative impact (in relative terms at least) on the economic development. This may be derived from the fact that those non-

European countries that escaped colonial rule have been the economically most successful in the second half of the 20th century: Japan in the first place, later Korea, Taiwan, still later mainland China. While these countries imported parts of Western culture, they did it on their own terms. They had not been forced into the international division of labor on the basis of Western interests, and therefore had better chances of building up a diversified industrial economy.

In the postcolonial era direct colonial rule has been partly replaced by the more diffuse exploitation by multinational, mostly Western and Japanese, corporations which have multiplied their investments in 'developing' countries since the second half of the 1970s. Though the exploitation mechanism works here too, this does not mean that these investments always have a negative effect on the economic development of the countries involved. It is a question of much dispute, and open to further investigation, what the consequences of foreign direct investments are for the economic development and the income inequalities between and within both the investing and the receiving countries. In all likelihood these consequences vary, depending on the economic sector and the regulations to which the investments are bound.

3. The positive or negative effects of investments by transnational corporations in developing countries depend, among other things, on the degree to which they bring with them the diffusion of useful technological, commercial, and organizational knowledge. Other possible vehicles for cultural diffusion are educational programs, development aid, and mass media communication. Of course, Western influence does not always have positive economic effects. It may wet the appetite for imported consumption goods and lower the demand for domestic products. Modern, science-based technologies are often ill-adapted to local social and cultural conditions, which makes their returns negative compared to the costs.

Nevertheless, there has also been a real diffusion of power resources from prosperous to nonprosperous societies in the second half of the 20th century. This did not lead, however, on the whole to a closing of the gap between these societies, since the pace of technological innovation and expansion of scientific knowledge in the prosperous societies accelerated in this same period and went along with a strong rise of educational levels.

Differences in educational levels between countries tend to become increasingly important for international investment patterns, giving rise to a new threefold international division of labor: between 'postindustrial' societies which house the headquarters of big transnational corporations and specialize in highly valued services requiring expert knowledge (finance, banking and accountancy, law, advertising, business consultancy, scientific research and development); industrializing societies specializing in low-wage manufacture (mainly located in Asia and Latin America); and agrarian societies still focusing on the production of crops and raw materials. This division roughly corresponds with a distinction between high-income, middle-income and low-income countries. The countries with the fastest economic growth can be found in the second category; the countries of the last category exhibit in general the lowest growth.

4. 'Interdependence' used to be, for some time, a popular concept in the dominant development discourse. It justified development aid and investments in poor countries, as it expressed the idea that economic growth in these countries would be in everyone's interest.

As a matter of fact, there *is* interdependence between rich and poor countries. The question to be asked here is whether this interdependence increased after 1950, or, to put it more precisely, whether the degree to which the rich countries are dependent on the poor increased. There are, as far as we can see, no strong indications for such an increase in general. The dependency of Western states on some Third World states (China, India, Iraq) did increase in a negative sense, as these states developed a strong military power; but this had hardly any consequences for world income inequality.

The dependency of richer on poorer countries as suppliers of food crops and raw materials, while remaining important, did not increase on the whole; it even decreased in some respects with the growth of food production in rich countries and the partial substitution of synthetics for 'natural' materials. As a consequence, the world market prices of these goods tended to fall, which aggravated the problems for many poor countries. Only on one important raw material, oil, the industrialized countries became more dependent. The consequent growth of wealth in the oil-producing countries remained exceptional however and had no substantial positive effects on the economic development of Third world countries in general.

In one important respect the awareness if not the 'reality' of the interdependence of all human beings clearly has grown in the past decades: the interdependence coming from global environmental problems (air and water pollution, global warming, exhaustion of natural resources, water shortages, diminishing biodiversity). The question is what this means for the relation between rich and poor countries. The inhabitants of the rich countries have an interest in attacking one source of the deterioration of the natural environment: the fast population growth in poor countries; and for this reason they have a stake in the growth of material welfare in these countries, since this correlates with falling birth rates and diminishing population growth. But economic growth also, and more directly, leads to more environmental problems as it involves a more intense exploitation of natural resources. In this sense the rich have an interest in keeping the poor poor. The concept of 'durable development' has been proposed to solve this dilemma, but its rather vague meaning betrays that the dilemma has not really been solved. In any case, while global environmental problems extend the awareness of humanity's common fate, they hardly give reasons to strive for more equality in the world (cf. De Swaan 1994).

Something similar can be said about another source of increasing international interdependence: the growth of (attempted and successful) migration from poor to rich countries. As opinion polls and actual policies indicate, the inhabitants of the rich countries have an interest in keeping the (potential) migrants out, or making a selection among them on the basis of their economic usefulness. While poverty and international inequality are the primary causes of these migration movements, it does not follow that it is in the interest of the rich countries to alleviate the poverty and help to diminish the inequality. For if decreasing poverty and inequality will reduce migration waves, they will do so only in the very long run. In the shorter run such changes will rather enhance the possibilities for international migration. In this respect too, the growing awareness of international interdependence among the inhabitants of prosperous countries does not mean that they will get a greater interest in the economic development of poorer countries.

Another source of interdependence are the investment flows from rich to poor countries. Corporations investing in poorer countries are interested in the health, safety, discipline, and skills of their workers there and therefore have reasons to contribute to these countries' economic development. But they also have an interest in keeping the wages low and assuring a sufficient supply of cheap labor. If they cannot get it in one country, they will move to another one - an option which has become easier in the past three decades with technological and organizational innovations and the breakdown of political barriers to capital mobility. The growing mobility of capital, while stimulating foreign investments, including in poorer countries, also makes firms and capital owners less dependent on any specific country.

In sum, whereas global interdependencies increased in the second half of the 20th century in several respects, this did not lead, on the whole, to more balanced power-dependence relations between groups of people with unequal life chances inhabiting different parts of the globe. This is part of the explanation why world income inequality increased rather than decreased in this period.

Notes

1. Source: World Bank 1999/2000, Table 1. In order to make the data comparable to those for previous years, the countries of the former Soviet Union as well as the two parts of former Czechoslovakia (the Czech Republic and Slovak Republic) have been taken together. The total number of countries is 120, comprising about 98% of the world population.

2. Sources: Maddison 1995; Summers & Heston 1984, 1988; World Bank 1992, 1998/1999, 1999/2000; UNDP 1999. Maddison (1995) gives PPP estimates for all countries in the world in 1950 and 1990, and for 56 countries plus 7 world regions in 1960 and 1970. Estimates by Summers and Heston (1984, 1988) have been used in order to assess between-country differences within these regions. On this basis the same 113 units (106 countries plus 7 remaining regions) for five selected years (1950, 1960, 1970, 1980, 1990a) were distinguished. These units comprise more than 99% of the world population. For 1990(b) and 1998 World Bank data on PPP estimates and, in addition, UN data (UNDP 1999) have been used. The number of countries for these years is 120, comprising about 98% of world population. The different outcomes for 1990 (a and b) are partly due to the different number and nature of the units (the larger number in version b makes in itself for higher degrees of calculated inequality) as well as to different PPP estimates. In particular, Maddison's figure for per capita income in China in 1990 is substantially higher than the World Bank estimate: 53% and 41%, respectively, of average per capita world income (PPP). If the Chinese figures were equal, the over-all outcomes for world inequality in 1990 a and b would be quite similar.
The Gini and Theil coefficients are standard measures of inequality, widely used in the literature on income distribution. The Gini varies from 0 (absolute equality) to 1 (maximum inequality). The Theil does not have a fixed maximum, as its value depends on the number of population units. This makes the Gini preferable for comparison between populations of different size. The Theil has the advantage, on the other hand, that it can be disaggregated into smaller components (as will appear in the next section). See also note 3.

3. Which can be explained by the fact that the Theil coefficient is more sensitive to changes at the extremes of the distribution.

4. That is to say in operational terms: the units of analysis as mentioned in note 2. They include all large and most smaller countries in the world and comprise at least 97% of the world population. Mini-states like the independent small islands in the Pacific are excluded.

5. Calculated on the basis of data as specified in note 2. For 1990 the table presents the averages of the outcomes for 1990(a) and 1990(b).

6. World Bank 2000/2001, Table 5. The data for most Third World countries are based on estimates of consumptive expenditures rather than income. But even for the 'developed' countries the data on income distribution are not very reliable and not easy to compare, as they depend on varying definitions of income and administrative practices. Therefore, they can only be treated as rough approximations of 'real' differences.

7. The statistics are from the World Bank, *World Development Report*, various years.

8. See note 7. Other sources: Milanovic 1998 and UNDP 1999: 39 (for Eastern Europe and the former Soviet Union); Kahn et al. 1992 and Kahn & Riskin (for China). In order to make a good comparison in time the former Soviet Union has been regarded as one unit, and data on different parts of this unit have been combined accordingly. Similarly, the two parts of former Czechoslovakia have been regarded as one unit.

9. As data for these years were not always available, in many cases data have been used which actually refer to a year somewhat before or after 1980, 1990 or 1998.

10. This is far more than advanced by Korzeniewicz and Moran (1997: 1016-1017). The difference is that they work with much higher values for between-country inequality, as these are based on GNP figures according to official exchange rates without correction for price differences. As stated before, this might be defensible if one wishes to compare the strength of national economies in international relations; but this reason is no longer valid if one includes data on the internal distribution of income in the assessment of global inequality.

11. To repeat, all these quantitative statements are not to be taken literally, but can at best be regarded as rough approximations of real differences.

12. Estimated on the basis of data in UNDP 1999: 171.

13. These countries are Botswana, Burundi, Malawi, Uganda, Rwanda, Zambia, and Zimbabwe. The averages are unweighted.

References

Arrighi, Giovanni (1994), *The Long Twentieth Century.* London: Verso

Collins, Randall (2000), 'The Multidimensionality of Social Evolution and the Historical Pathways of Asia and the West', *Amsterdams Sociologisch Tijdschrift*, 27, 1-2, 138-163

De Swaan, Abram (ed.), *Social Policy beyond Borders: The Social Question in Transnational Perspective*. Amsterdam: Amsterdam University Press.

Elias, Norbert (1978), *What is Sociology?* London: Hutchinson

Frank, Andre Gunder (1998), *ReOrient: Global Economy in the Asian Age*. Berkeley: University of California Press.

Goudsblom, Johan (1996), 'Human History and Long-Term Social Processes: Toward a Synthesis of *Chronology* and *Phaseology*', in: J. Goudsblom et al., *The Course of Human History*. New York/London: M.E. Sharpe.

Kahn, A.R. et al. (1992), 'Household income and its distribution in China', *China Quarterly*, 1027-1061

Kahn, A.R. and C. Riskin (1998), 'Income and inequality in China: composition, distribution and growth of household income, 1988 to 1995', *China Quarterly*, June, 221-253

Korzeniewicz, R.P. and T.M. Moran (1997), 'World-economic trends in the distribution of income, 1965-1992', *American Journal of Sociology*, 102, 4, 1000-1039

Lenski, Gerhard et al. (1995), *Human Societies*. New York etc.: McGraw-Hill, 7th edition

Lenski, Gerhard and Patrick Nolan (1984), 'Trajectories of Development: a test of ecological-evolutionary theory', *Social Forces*, 63, September, 1-25

Maddison, Angus (1995), *Monitoring the World-Economy, 1820-1992.* Paris: OECD

Mann, Michael (1986), *The Sources of Social Power, vol. I: A History of Power from the Beginnings to AD 1760*. Cambridge: Cambridge University Press

Ram, Rati (1992), 'Intercountry inequalities and basic-needs indicators: a recent perspective', *World Development*, 20, 6, 899-905

Sanderson, Stephen K. (1995), *Social Transformations. A General Theory of Historical Development*. Oxford: Blackwell.

Sprout, Ronald V.A. and James H. Weaver, 'International Distribution of Income: 1960-1987', *Kyklos*, 45, 2, 237-258

Summers, Robert and Alan Heston (1984), 'Improved international comparison of real product and its composition, 1950-1980', *Review of Income and Wealth*, June, 207-262

Summers, Robert and Alan Heston (1988), 'A new set of international comparison of real product and price levels estimates for 130 countries, 1950-1985', Review of Income and Wealth, 34, 1-25

UNDP (1996), *Human Development Report 1996*

UNDP (1999), *Human Development Report 1999*

Wallerstein, Immanuel (1974), *The Modern World-System*. New York etc.: Academic Press

Wallerstein, Immanuel (1979), *The Capitalist World-Economy*. Cambridge: Cambridge University Press/Paris: Editions de la Maison des Sciences de l'Homme

Wilterdink, Nico (2000), 'The Internationalization of Capital and Trends in Income Distribution in Western Societies', in: D. Kalb et al. (eds.), *The Ends of Globalization. Bringing Society Back In*, 187-215. Lanham: Rowman & Littlefield

World Bank (several years), *World Development Report [several years]*