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East Germany: Rising Incomes, Unchanged Inequality and the Impact of Redistributive Government 1990-92

by
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EAST GERMANY: RISING INCOMES, UNCHANGED INEQUALITY AND THE IMPACT OF REDISTRIBUTIVE GOVERNMENT 1990-92

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ABSTRACT - *What has happened to incomes, inequality and satisfaction with living standards in the first stage of transition from a communist command economy to a market economy in East Germany? This paper tests six hypotheses about the transition to capitalism. Contrary to expectations, real incomes went up not down, net income inequality scarcely increased, and those who were previously advantaged did not become better off at the expense of the previously disadvantaged. A major reason for the last two results was that the Federal Republic's taxes and benefits, which were much more progressive than the Communist regime's, had the effect of counteracting the increasing inequality of household gross incomes. It is also reported that, although real net incomes increased, satisfaction with living standards declined, probably because East Germans increasingly compared themselves with Western counterparts. Optimism about the future declined in 1991-2 after reaching very high levels in 1990 immediately after the revolution. This paper is based on the first three waves of the East German Socio-Economic Panel Study (SOEP) conducted in June 1990 (N= 4453 respondents in 2179 households), March-April 1991 and March-April 1992.*

In retrospect it seems clear that most East Germans supported unification with the Federal Republic for two main reasons. They wanted Western-style democracy and a much improved standard of living. They have got the first. What about the second?

This paper examines changes in incomes, income inequality and satisfaction with living standards in East Germany in 1990-92. Initial evidence comes from May-June 1990 when the command economy and the communist income distribution remained in place. The second and third measurement points were March-April 1991 and March-April 1992, after one and two years of transition towards West Germany's (or united Germany's) social market economy (Soziale Marktwirtschaft).

Transitions from a communist system and command economy to Western-style democracy and a market economy have never occurred before, so there is no social science literature from which we can directly draw hypotheses about what is likely to happen. There are, however, well established differences between the two systems which may offer some guidance.

The hypotheses tested in this paper rest on three assumptions. First, there seems little doubt that communist command economies were economically less efficient, with lower levels of productivity than Western systems. It follows that, in order to compete in international markets, enterprises in Eastern Europe will initially need to cut costs, including wages, or else go out of business. Either way, standards of living would be expected to fall in the transition to a market economy.

A second assumption is that Communist countries had more egalitarian gross and net income distributions than Western countries. Hauser, Müller, Wagner and Frick (1991) have shown that this was quite clearly true for East Germany in comparison with West. Whereas Communist governments retained some degree of commitment to income equality, Western economic systems rely on substantial income differentials as incentives to individual productivity and ambition. Government taxes and transfers may reduce net income inequality, but there is no suggestion that they cancel out market driven income differentials. It seems reasonable to predict that net income inequality will increase in the transition to democracy and a market economy.

A third assumption underlying the hypotheses listed below is that, if people's real incomes increase, they generally become more satisfied and optimistic about their own economic situation, whereas if incomes decline, they are dissatisfied and pessimistic (Andrews and Withey, 1976; Argyle, 1987; Diener, 1984; Zapf and Glatzer, 1987).

The six hypotheses to be tested are:

1. During the first stage of transition most East Germans suffered a decline in living standards.
2. The income distribution became more unequal.
3. People who were previously relatively advantaged became better-off, while disadvantaged people became worse-off. That is, in the transition to capitalism, the 'rich' became richer and the 'poor' became poorer[1].
4. East Germans became increasingly dissatisfied with their incomes, standard of living and life-as-a-whole.
5. Those whose standard of living actually improved became more satisfied, while those whose standard of living declined were dissatisfied.
6. In 1990-92 East Germans became more pessimistic about the future.

These hypotheses may seem like 'common sense', almost too obvious to be worth testing. The first hypothesis follows directly from the first of the assumptions discussed above relating to low productivity in Communist countries. The second and third hypotheses are derived from the second assumption, relating to the greater inequality of incomes in the West than in Eastern Europe. It seems reasonable to expect that gross and net incomes inequality would increase in the transition to a democratic-market system. The third hypothesis could also be given a human capital interpretation. If (but only if) it can be assumed that people with more rather than less human capital (education, skills) rose to the top in Communist East Germany, then it is plausible to hypothesize that returns to capital would increase in the transition to a market economy, with the result that those who were previously advantaged would become relatively better off, while the disadvantaged would become worse off (Kelley and Klein, 1977).[2]

Although apparently 'obvious', four of the six hypotheses turn out to be false. So part of the paper will involve trying to explain why 'reality' defies 'common sense'. A major factor, we shall find, has been the impact of the Federal Government's taxes and benefits. These have redistributed income in ways which may not have been entirely intended, with quite dramatic effects on income levels and inequality in East Germany.

With events changing so rapidly, it is crucial to remember exactly when the income data (and satisfaction data) were collected. The first wave of panel interviews were conducted in June 1990 after the first non-communist government was elected in March but before the D-Mark was introduced into East Germany in July and before unification in October. The Communist occupational structure and income distribution were still largely in place and are recorded in the survey. Only the top political elite and a limited number of other senior appointees had been removed.

The second wave of interviews mainly took place 9-10 months later in March-April 1991.[3] This was after unification, after the first all-German elections had taken place in December 1990 and after Western investment in the East was already underway. But it was before the abolition of many job subsidies in July 1991, which led to increased unemployment, and before the large rent increases in October. The third wave of interviews were conducted in March-April 1992.

So the results given below only hold for the specific time points at which data were collected. They nevertheless help us to understand unexpected developments in the first phase of transition from a Communist command economy to the West German social market economy (Soziale Marktwirtschaft).

METHOD

The German Socio-Economic Panel (SOEP)

The SOEP began in 1984 with a sample of West Germans only (9114 individuals aged 16 and over in 4528 households). Additionally, samples were drawn from the five main groups of foreigners living in the country: Greeks, Italians, Spanish, Turks and Yugoslavs (4805 individuals in 1393 households). Respondents have been interviewed each year since the inception of the study. The representativeness of the panel is maintained both by strenuous efforts to retain initial respondents and by interviewing 'split-offs' (i.e. respondents who leave their original family to set up their own household).

When it became possible to interview in East Germany after the revolution of 1989, the Panel was extended to the five new Laender. A sample of 4453 individuals (2179 households) was first interviewed in June 1990. The initial response rate of 70 percent was somewhat higher than was achieved in West Germany (60 percent). The attrition rate of 8.3 percent between waves 1 and 2 was lower than in the West. Wave 2 to wave 3 attrition was 11.8%. Wave 2 interviews took place mainly in March-April 1991 and wave 3 interviews a year after that.

The SOEP is the largest study of its kind in Europe and is partly modelled on the Michigan Panel Study of Income Dynamics which has now run for twenty-four years. The main topics covered are wealth, income, taxation, social benefits, employment, education, housing, health and subjective satisfaction levels and values.

MEASURES

Our aim is to measure changes in real incomes and standard of living. Clearly, an individual's standard of living depends not primarily on the income which he/she personally receives but on household income, adjusted for household size. An important issue is how to adjust for household size. An obvious approach is to use household per capita income, but this makes no allowance for economies of scale in larger households, or for the fact that on average children are less expensive to maintain than adults. To adjust for these factors, the concept of equivalent income has been developed (Buhmann et al., 1988; Ringen, 1991). Different equivalence weights are used by researchers in different countries, but for international comparisons the following weights, sometimes referred to as the OECD equivalence scale, are widely used (Ringen, 1991). The first adult in a household receives a weight of 1.0, other adults have a weight of 0.7, and children under 18 a weight of 0.5.

In this paper we have preferred to use the OECD weights rather that the more complicated weights implied by the German Social Assistance program. It has been shown that, although the use of alternative reasonable weights substantially affects estimates of the relative real incomes of different types of household, it does not in practice significantly affect overall estimates of poverty and inequality within particular societies or affect comparisons between them (Buhmann et al. 1988).

The steps in calculating equivalent incomes are as follows:

1. Calculate household disposable income; i.e. the combined income of household members after deducting taxes and adding the value of government benefits received.[4]
2. Divide household disposable income by the household's equivalence score using the OECD weights. For example, a household with two adults and two children has an equivalence score of 2.7 (1.0 for the first adult, plus 0.7 for the second adult, plus 0.5 for each of the children).
3. Attribute the same equivalent income (in effect, the same potential consumption level) to all individuals in the household.

It should be noted that the income data used here relate to the months of May 1990, March 1991 and March 1992. Respondents were asked to estimate their net (after tax) household income from all sources, including labor income, public and private transfers and (at least in principle) black income and fringe benefits.[5]

A potential weakness of monthly data is that they may be more volatile than data for a longer period (eg. a year). This implies that we might have somewhat overstated the degree of change in the position of households in the income distribution. However, Berntsen and Rendtel's (1991) estimates indicate that the problem is minimal when dealing with aggregates (eg. the poverty population or income quintiles; see also Habich, Headey and Krause, 1991).[6]

In the first wave of interviews respondents were asked to try and recall their individual (but not household) gross incomes a year earlier (May 1989). These data are of considerable interest, but recall data are clearly less reliable then contemporaneous data, so the 1989 figures will be used only sparingly in this paper.

Adjustment for cost of living increases

In measuring change in equivalent incomes from 1990 to 1992, it is necessary to adjust for the cost of living.increase. The official Statistisches Bundesamt figures for East Germany have been used.[7] The Statistisches Bundesamt employs a conventional 'shopping basket' approach, purchasing typical bundles of goods and services for families in East Germany. It should be noted that, provided this consumer research was done accurately, increases in the cost of living due to the withdrawal or partial withdrawal of components of the 'social wage' (eg. free child care and cheap rents) would be recorded. Clearly, the Statistiches Bundesamt faced a difficult task in estimating cost of living increases in an economy in transition, but equally clearly its data are the best available.

Income inequality

Changes in income inequality are measured by examining quintile shares of disposable equivalent income in 1990, 1991 and 1992. The Gini coefficient, which ranges between 0 (perfect equality) and 1 (one unit receives all income), is also used as a summary measure of income distribution. Despite its widespread use, however, it is known not to be sensitive to changes at the very top and bottom of the distribution, which are generally of most interest to sociologists (Kakwani, 1986). Quintile shares provide a clearer picture in this regard.

Redistributive impact of government

It is necessary in this paper to estimate the impact of government on income inequality. To do this we need to know the difference between gross factor incomes and net incomes after government taxes and benefits. Our measure of net income is disposable equivalent income (described above). To estimate the redistributive impact of government, it is therefore necessary to construct a measure of gross equivalent income (Ringen, 1991). This was done by calculating each household's total labor income and dividing by its equivalence score. It is conceded that labor incomes are not an exact measure of pre-government incomes, even in East Germany, because investment incomes and private transfers (e.g. from non-custodial to custodial parents) are omitted. It seems fair to note, however, that investment incomes were not substantial in East Germany in 1990-92.

In summarizing the redistributive impact of government, we assess the gain or loss to each gross equivalent income quintile resulting from taxes and benefits. The Gini coefficients of gross and disposable equivalent incomes are also directly compared, using methods developed by Kakwani (1986) and Ringen (1991).

Satisfaction-dissatisfaction and optimism-pessimism

Satisfaction with household income, with material standard of living and life-as-a-whole are measured on a 0-10 scale where 0 means completely dissatisfied and 10 means completely satisfied. Optimism-pessimism is measured on the same scale with a question asking respondents how satisfying they expects their lives to be in five years time.

RESULTS

Most households are better-off

The hypothesis that most people in East Germany became worse off following the revolution appears unambiguously false. The equivalent incomes of 65.3% of the sample increased between May 1990 and March 1992, after allowing for a 29.6% increase in the cost of living. On average equivalent incomes increased at an annual rate of 8.4%; a high growth rate by normal international standards. If East German households in which one or more members commutes to the West to work are excluded (on the grounds that one wants to look separately at incomes generated within East Germany), the growth rate was 7.1%.

TABLE 1
Changes in Real Household Equivalent
Income 1990-1992[a]

	All household	Excluding commuters
1990-91	+ 9.1%	+ 6.1%
1991-92	+ 7.0%	+ 7.6%
1990-92	+16.7%	+14.2%
Annual rate	+ 8.4%	+ 7.1%

a Inflation was 12.6% from May 1990 to March 1991, 15.1% March 1991 to March 1992, and 29.6% for the entire period.

However, despite these high average rates of growth in real household incomes for the 1990-92 period, a significant proportion of families actually experienced a drop in income in one of the two years.

TABLE 2
Household Income Fluctuations 1990-92

Income Change	% of Households
Better off both years	33.4%
Better off 90-91, worse off 91-92	25.7%
Worse off 90-91, better off 91-92	28.1%
Worse off both years	12.8%
	(100.0%)

The volatility of household incomes can be gauged from the fact that only 33.4% showed real gains in income in both years and over a quarter saw their incomes fall in one of the two years. Altogether, although each year about 60% of families had a real income gain only 65.3% were better off overall. As we shall see, these fluctuations in income largely depended on whether one, both or neither partner in the household managed to keep his or her job (see Tables 11, 12). So while most people are better off, incomes and living standards are very insecure and heavily dependent on a volatile job market.

Real incomes also appear to have increased between 1989 and 1990. Only individual gross income figures are available for 1989, and it must be remembered that respondents in 1990 were asked to recall their incomes a year before. However, if we accept the figures, it appears that incomes grew 14.2% in nominal terms and perhaps 15.3% in real terms (assuming a cost-of-living decline of 1.1%; Statistisches Bundesamt, 1991).

Income inequality almost unchanged - just slightly up

The second hypothesis, that income inequality would increase in the transition to a market economy, also appears more false than correct. Income inequality, measured by equivalent incomes, appears to have increased just slightly. Table 3 shows quintile shares of equivalent incomes in 1990, 1991 and 1992. The top half of the table gives results for the entire population living in East Germany, the lower half excludes households in which one or more members commuted to the West to work in 1991 or 1992 and whose incomes therefore partly reflected a Western rather than Eastern income distribution. It should be noted that 5.0% of the labor force (480,000 people) commuted to the West in 1991.

TABLE 3
Quintile Shares of Equivalent Income 1990-92

		All Households	
Quintiles	1990[a]	1991	1992
Q1	11.8%	11.6%	11.4%
Q2	16.1%	16.2%	16.4%
Q3	19.3%	19.0%	19.2%
Q4	22.9%	22.3%	22.6%
Q5	29.8%	30.4%	30.5%
	(100.0%)	(100.0%)	(100.0%)
Gini	0.182	0.190	0.191
		Excluding Commuters	
Q1	11.8%	11.8%	11.5%
Q2	16.1%	16.4%	16.2%
Q3	19.3%	19.2%	19.4%
Q4	22.9%	22.5%	22.7%
Q5	29.8%	30.2%	30.4%
	(100.0%)	(100.0%)	(100.0%)
Gini	0.182	0.183	0.188

a There were virtually no commuters in 1990.

These results indicate that, whether or not we include commuters, there has been a small increase in inequality. The bottom quintile (N.B. not the same people each year) had a share of total net household income which had fallen by 0.4% from 11.8% to 11.4%. The top quintile had gained 0.7%. The Gini coefficient increased from 0.182 to 0.191. If we exclude families earning money in West Germany, the picture is virtually the same. The bottom quintile was

0.3% worse off in 1992 than in 1990 and the top quintile was 0.6% better off. Excluding commuter households, the Gini coefficient increased from 0.182 to 0.188.

These results were contrary to expectation and, post hoc, we searched for an explanation. One possibility was that market forces had not yet, in these first two years of transition, increased inequality of gross incomes. An alternative possibility was that the Federal Government's taxes and benefits counteracted increased inequality of gross incomes to the point where disposable incomes were no more unequal than in the final years of communism.

In trying to assess the relative impact of the market and of governmental redistribution, we first examined quintile shares of labor market earnings, excluding individuals with no earnings.

Table 4 indicates a moderate increase in inequality of individual earnings if all earners are included, and a smaller increase if commuters to the West are left out. If the entire sample is considered, the bottom quintile's share declined by 0.1% and the top quintile was 1.8% better off. The Gini coefficient rose from 0.217 to 0.236. Excluding commuters, the bottom quintile was 0.1% better off and the top 1.0% better off. The change in Gini was form 0.217 to 0.225.

So the market has not yet greatly increased inequality for individuals who have remained in work. However many people lost their jobs, others went into early retirement, and still others were in short-time work (Kurzarbeit). In 1990 85% of respondents aged 16-64 were in full or part-time work; in 1991 the figure was 73% and in 1992 it was 66%. We now consider the gross equivalent incomes (labor incomes) of households whose heads were under 65 (and hence of normal working age), including households in which no-one had a job and whose labor income was therefore zero. The purpose of this measure is to indicate what incomes would have been if (in a sense) the State did not exist, if there were no redistribution through taxes and benefits.

TABLE 4
Individual Gross Earnings:
Quintile Shares

Quintiles	1990[a]	1991	1992
	All Households		
Q1	9.5%	9.3%	9.4%
Q2	16.2%	15.7%	15.7%
Q3	19.6%	18.9%	18.7%
Q4	23.1%	22.3%	22.7%
Q5	31.6%	33.8%	33.4%
	(100.0%)	(100.0%)	(100.0%)
Gini	0.217	0.239	0.236
	Excluding Commuters		
Q1	9.5%	9.5%	9.6%
Q2	16.2%	16.3%	16.0%
Q3	19.6%	19.4%	18.9%
Q4	23.1%	22.6%	22.8%
Q5	31.6%	32.5%	32.6%
	(100.0%)	(100.0%)	(100.0%)
Gini	0.217	0.224	0.225

a There were virtually no commuters in 1990.

TABLE 5
Pre-Government Incomes: Household Gross Labour Incomes:
Quintile Shares[a]

All Households			
Quintiles	1990[a]	1991	1992
Q1	7.7%	4.7%	1.8%
Q2	15.3%	13.7%	12.3%
Q3	19.7%	19.4%	19.5%
Q4	24.2%	24.9%	26.3%
Q5	33.1%	37.3%	40.1%
	(100.0%)	(100.0%)	(100.0%)
Gini	0.254	0.325	0.382
Excluding Commuters			
Q1	7.7%	4.5%	1.5%
Q2	15.3%	13.9%	12.2%
Q3	19.7%	19.7%	19.6%
Q4	24.2%	25.2%	26.7%
Q5	33.1%	36.8%	40.0%
	(100.0%)	(100.0%)	(100.0%)
Gini	0.254	0.322	0.385

a Excluding households whose head was over 65.

It can be seen that, whether or not commuters are included, inequality of gross equivalent incomes increased quite sharply between 1990 and 1992. The bottomquintile's share declined by about 6% and the top quintile's share increased about 7%. The reason for the difference between Table 4 and Table 5 is that, although the market has not yet made individual earnings more unequal, it has had a substantial effect in reducing employment. The households in the bottom quintile of gross earnings (pre-Government income) are differentially those in which one or more people lost their job, whereas households in the higher quintiles are mainly those in which everyone kept a job (see Table 11).

Given that we now know that (a) disposable (net) equivalent incomes scarcely became more unequal (Table 3) and (b) that gross equivalent incomes did become more unequal (Table 5), it follows that Government taxes and benefits must have exerted a more progressive, redistributive impact in 1992 than in 1990. In other words the 'West' German Federal Government must be acting more 'progressively' than the former GDR Communist government whose taxes and social benefits still operated in May 1990.

Table 6 provides a rough estimate of the redistributive impact of Governments in 1990, 1991 and 1992. As noted above, it is not a precise estimate because some minor sources of pre-Government income are not included (investment income and private transfers). Also, only the effects of income tax and payroll taxes are shown on net (post-Government) equivalent incomes. The effects of consumption (sales) taxes are not included. This last omission is unfortunate but is perforce normal in international comparisons (see, for example, Buhmann et al.,1988).

Table 6 divides households into quintiles on the basis of gross equivalent incomes and then shows the share of disposable equivalent incomes which each of these quintiles received. It should be understood that the disposable shares are different from those shown in Table 3, because the purpose of Table 3 was simply to compare quintile shares 1990-92, not to estimate the redistributive impact of Government on households which had different starting (i.e. gross income)positions. Again, analysis is confined to households with heads under 65.[8]

Under the former GDR's tax-benefit system in 1990 the share of net equivalent income received by the bottom two quintiles was 8.2% more than their share of gross equivalent income. Under the Federal Republic in 1991 the bottom two quintiles were receiving a 12.1% larger share of net than gross income, and by 1992 the figure was 16.2%.

TABLE 6

Redistributive impact of "Communist" Government (1990) and "Capitalist" Government (1991, 1992)[a]

	1990			1991			1992		
Quintiles	Gross Share	Net Share	Govt. Impact[b]	Gross Share	Net Share	Govt. Impact[b]	Gross Share	Net Share	Govt. Impact[b]
Q1	7.7%	14.5%	+6.8%	4.7%	14.2%	+9.5%	1.8%	14.7%	+12.9%
Q2	15.3%	16.9%	+1.4%	13.7%	16/3%	+2.6%	12.3%	15.6%	+ 3.3%
Q3	19.7%	19.1%	-0.6%	19.4%	18.4%	-1.0%	19.5%	18.6%	- 0.9%
Q4	24.2%	21.8%	-2.4%	24.9%	21.7%	-3.2%	26.3%	21.8%	- 4.5%
Q5	33.1%	27.8%	-5.3%	37.3%	29.2%	-8.1%	40.0%	29.2%	-10.8%
	(100.0%)	(100.0%)		(100.0%)	(100.0%)		(100.0%)	(100.0%)	

a. Excludes households whose head was over 65.

b. Government impact-gross share minus net share

It would be incorrect to imply that by 1991 and 1992 these redistributions in favour of lower income quintiles represented only or even mainly transfers from the top three quintiles of East Germans. Western taxes and federal government debt clearly made substantial contributions to household net incomes in East Germany. The point here is that these contributions appear mainly to have been directed at lower income groups, with dramatic effects in maintaining a low level of net income inequality.

An alternative method of assessing the redistributive impact of government is directly to compare Gini coefficients of gross and net income and calculate the percentage reduction in inequality produced by government action (Kakwani, 1986; Ringen, 1991). The left hand side of Table 7 gives results for all households, the right hand side for households where the head was under 65 and thus of normal working age.

TABLE 7

The Redistributive Impact of East German and 'West' German Governments: Gini Coefficients

	All			Head of household under 65		
	1990	1991	1992	1990	1991	1992
Gross equivalent incomes	0.349	0.414	0.464	0.254	0.325	0.382
Net equivalent incomes	0.182	0.190	0.191	0.172	0.195	0.199
Redistributive impact[a]	47.9%	54.1%	58.8%	32.3%	40.0%	47.9%

a Redistributive impact = (gross incomes - net incomes)/gross incomes. See Ringen (1991).

These calculations confirm that the redistributive impact of the Federal Government's taxes and benefits in 1991, and even more so in 1992, was substantially greater than GDR taxes and benefits in 1990. Including all households in the analysis, the effect of GDR taxes and benefits was to reduce the Gini coefficient by 47.9%. A year later the Federal Government was reducing Gini by 54.1% and in 1992 the reduction was 58.8%. Part of the major redistribution implied by the 1991 and 1992 figures, was due to old age pension increases (see below). If we exclude households whose head was over 65 and thus of normal pensionable age, the effect of Federal taxes and benefits was a reduction in the Gini coefficient of 47.9% in 1992, compared with 32.3% in 1990.

The results in Table 6 and 7 surprised us and may surprise some readers. In retrospect, however, they can be understood. The GDR Government maintained a low degree of income inequality primarily be enforcing a fairly egalitarian gross income distribution. Its tax-benefit system was progressive but not exceptionally so. In particular, one should note that income tax was levied on most incomes at around 8%; in other words it was close to being a flat rate tax (Bundesministerium für innerdeutsche Beziehungen, 1987). By contrast the German Federal Government, in principle, leaves gross factor incomes to be determined by the market and then intervenes in favour of lower income groups.

In trying to understand the workings of the market in comparison with the welfare state, we have sometimes excluded pensioner households (head aged 65 and over) from the analysis. The Federal Government has been even more 'generous' to these households than to lower income quintiles in general. In January 1991 pensions were increased on average by 45%; a policy action which at a stroke greatly improved the standard of living of nearly 20% of the population.

In summary, it is clear that so far in East Germany politics have been more important than economics. The Federal Government has been keen to improve the living standards of East Germans and so have trade unions. Welfare state benefits have flowed since the unification of the two economies on July 1, 1990. The impact of the market on income inequality has so far been patchy. Labor incomes have not yet become more unequal, but the effect of market forces has been to increase unemployment and so increase inequality of household earnings.

The 'rich' are not getting richer and the 'poor' are not getting poorer

The hypothesis that the demise of a command economy would enable those who were already relatively well off in East Germany to become better off, and would cause those who were worse off to decline further, appears unambiguously false.

TABLE 8

Did The 'Rich' Get Richer And the 'Poor' Poorer
In East Germany, 1990-92

Disposable Equivalent Income Quintiles 1990	Change in real income by 1992 (a)
Lowest	+65.9%
2nd	+35.0%
3rd	+16.6%
4th	+ 7.1%
Highest	- 1.5%

(a) Average change in equivalent incomes of members of 1990 quintiles after adjusting for a 29.6% increase in the cost-of-living.

It can be seen that, far from becoming better off, those who had been relatively advantaged in May 1990 suffered a decline in real incomes by March 1992, whereas those who were disadvantaged recorded an increase in income. Lest these results appear too surprising, it should be noted that somewhat similar figures for two year periods are normal for Western countries. Some regression-to-the-mean is quite usual (although, as we shall see, it was on an exceptional scale in East Germany) and is mainly due to changes in household size and to entries and exits from the labor force by members of the household (Duncan, 1984; Habich, Headey and Krause, 1991). The main point here, however, is that we can reject the hypothesis that people who had been 'rich' in East Germany in 1990 became richer by 1992, and that people who had been poor became poorer.

We now assess the exceptional amount of movement among income quintiles that occurred in East Germany, with many previously advantaged households moving down the income distribution, and many poorer households moving up.

TABLE 9

Movement Between Equivalent Income Quintiles 1990-92

1990 Quintiles	1992 Quintiles Q1	Q2	Q3	Q4	Q5
Q1	40.8%	28.0%	16.4%	10.2%	4.5% (100.0%)
Q2	21.9%	24.6%	26.5%	19.3%	7.8% (100.0%)
Q3	17.4%	19.4%	27.1%	24.3%	11.3% (100.0%)
Q4	10.5%	18.0%	19.3%	26.0%	26.1% (100.0%)
Q5	7.0%	8.2%	12.8%	21.5%	50.4% (100.0%)

The underlined figures on the top left to bottom right diagonal of Table 9 show the exceptionally low percentages of households who in 1992 remained in the same quintiles as in 1990. Of those who were in the poorest quintile in 1990 only 40.8% were still there two years later, while over 30% had move up by two quintiles or more. Similarly only 50.4% of the most affluent quintile remained in place in 1992, while 28.0% had moved down two quintiles or more.

To indicate the exceptional degree of volatility in the East German income distribution in 1990-92, a comparable transition matrix is printed for West Germany.

TABLE 10

Movement Between Income Quintiles: W. Germany 1987-89[a]

	1989 Quintiles				
1987 Quintiles	Q1	Q2	Q3	Q4	Q5
Q1	65.5%	18.5%	9.1%	5.0%	1.7% (100%)
Q2	17.8%	48.1%	21.5%	9.0%	3.6% (100%)
Q3	8.2%	20.1%	42.8%	21.6%	7.2% (100%)
Q4	4.0%	9.4%	19.9%	46.8%	19.9% (100%)
Q5	4.5%	3.4%	7.0%	18.5%	66.4% (100%)

(a) Disposable equivalent incomes in 1987 and 1989. These years are used for West Germany since they are the last years before any possible influence from reunification could be felt.

It can be seen that the West German income distribution is considerably more stable (although the degree of change may surprise readers not accustomed to evidence of income dynamics). Stability in the top and bottom quintiles is about 66%, compared with 40-50% in the East, and in the middle quintiles it is around 43-48% compared with 24-27% in the East.

The apparently greater stability of the top and bottom quintiles in both East and West, compared with the middle quintiles, is somewhat misleading. Because income distributions (even in Communist countries) have fairly long tails, large changes can occur in the incomes of very affluent and very poor people without moving them out of their original quintiles. In fact real income changes in the top and bottom income quintiles are often quite substantial (Table 8).

What accounts for the exceptionally high degree of income volatility in East Germany? Who have been the initial winners and who the initial losers after the revolution? In what follows we make no pretence of giving a complete account but merely point to some of the main factors.

The winners were virtually all households in which everyone kept a job. The losers were those households in which one or more members lost their jobs.

TABLE 11

Effect of Changes in Household Labor Force Participation on Incomes 1990-92

Change in labor force participation[a]	Change in income[b]	(% respondents)
-2	-16.3%	(10.9%)
-1	- 1.2%	(27.4%)
0	+25.4%	(51.5%)
+1	+34.2%	(9.5%)
+2	+32.9%	(0.8%)

(a) Excludes households whose head was over 65.

(b) Change in disposable equivalent incomes net of 29.6% increase in cost of living.

A small majority of respondents (51.5%) were in households where there was no change in labor force participation, and these people were on average 25.4% better off in 1992 than 1990. However a large minority (38.3%) were in households where one or more members was no longer in work. These households were worse off. Finally, about 10% of respondents were in households in which, against the trend, labor force participation actually increased. Their real incomes rose substantially.

Table 11 covers entries and exits from the labor force by retirees and teenage children as well as married couples. In Table 12 analysis is restricted to households in which both partners worked in 1990 and were still of working age (under 65) in 1992. It should be remembered that in Communist East Germany (and still in 1990) nearly all married women were in paid employment.

TABLE 12

Effects on Disposable Incomes of Partners Continuing or Stopping Work by 1992[a]

Employment status in 1992	% change in income	(% respondents)
Both partners working	+25.0%	(60.1%)
Head working, partner not	- 0.9%	(21.5%)
Head not working, partner working	- 1.1%	(9.0%)
Both not working	-19.9%	(9.4%)

(a) Analysis is confined to households in which both partners worked in 1990 and were still under 65 (ie. normal working age) in 1992.

In 60% of households both partners were still working in 1992 and these households were substantially better off. However, if either partner lost his/her job the family was slightly worse off, and in families where both partners were out of work, the decline in real incomes was close to 20 per cent.

Most people became much less satisfied with their incomes and standard of living, especially those who used to be better off

Despite the fact that most real household incomes increased between May 1990 and March 1992, most SOEP respondents became less not more satisfied with their incomes and standard of living. Satisfaction with household income declined from an average of 5.6 (on the 0-10 scale) to 4.7 in 1991, and then recovered slightly to 4.9 in 1992.* The 1990-91 decline must be one of the largest ever observed in any life domain in any country in a single year (Headey and Wearing, 1992).

The satisfaction levels of previously better off people declined more than the satisfaction of previously worse off people, which makes sense in view of relative changes in real income (Table 8). The average income satisfaction of people in the top two quintiles (1990) in fact declined by 0.9 points on the 10 point scale, while satisfaction in the bottom two quintiles declined by only 0.2.

Presumably a major reason for these results is that the standard of comparison used by East Germans in arriving at their satisfaction-dissatisfaction judgements changed. More directly than before, they compared themselves with counterparts in the West. People in most occupations could see that their equivalents in the West were better paid, and everyone was aware that living standards were much higher in the West. The revolution of 1989 raised expectations, so that even some people whose real incomes rose, as well as those who lost money, had disappointed expectations and felt dissatisfied. Dissatisfaction probably also resulted from heightened anxiety due to much greater job insecurity than in communist times and hence insecurity of incomes and living standards.

A final reason for dissatisfaction could be that people believed what they read in the newspaper. Media stories were full of gloom about East Germany. Some people who were moderately better off may have been induced by media stories to feel worse off.

Only people whose incomes increased by more than 45% have become more satisfied

People in East Germany only reported increased satisfaction with their family incomes if their disposable equivalent incomes increased by more than 45% in 1990-92 (N.B. the average increase was 16.7%). Respondents whose incomes increased by less than 45%, or who suffered a decline in income mostly reported declining satisfaction. In short only a very large (unsustainably large?) increase in real income was sufficient to meet rising post-revolutionary expectations and the new standards of comparison used in assessing one's living standards. In practice 32% of the sample obtained a real income increase sufficient to make them more satisfied. The remainder recorded a decline or no change in satisfaction.

Levels of optimism have fallen in East Germany but remain high

Our final hypothesis relates to optimism about the future. Almost everything one reads about East Germany in the media suggests that people feel pessimistic. In fact, the second wave of panel data indicated that optimism remained high (x=7.3 on the 0-10 scale) and was only slightly down from the post-revolution high of 7.5 in 1990. However, optimism then fell to an average of 7.0 on the 0-10 scale in 1992. Even so, this level is less than half a point below those in West Germany (Zapf and Glatzer, 1987).

So the picture is that incomes have risen significantly in real terms while satisfaction with income and living standards has fallen. But optimism about the future remained fairly high. As often, survey data present a complicated picture of the links between objective change and subjective change. But although the picture is complicated it is not incomprehensible. Comparisons with the West are probably the key. East Germans are dissatisfied because their material standards are still well below those of West Germans but they expect, eventually, to attain those standards and so feel fairly optimistic about the future.

CONCLUSIONS

We have tested six hypotheses about income changes and their subjective consequences in East Germany in 1990-92. The hypotheses seemed almost too obvious, too commonsensical to be worth testing. Yet four of the six proved false, and one that was 'right' was 'right' for the 'wrong' reason, in that East Germans became increasingly dissatisfied with their incomes, not because incomes declined but because expectations rose. (The last hypothesis relating to optimism, yielded an ambivalent result).

Given that four of six hypotheses were false, it follows that either the assumptions underlying them were false, or that other more crucial assumptions and variables were left out of consideration. Our two main assumptions were that (1) real incomes in East Germany would decline because of low productivity levels compared with the West, and 2) income inequality would increase in the transition to a market economy.

Post hoc, the main error was in assuming that economic imperatives would drive the first stage of transition to a market economy and Western style democracy. In the event, it appears that the Federal Government's taxes and benefits have had substantial effects in raising the incomes of some households and maintaining an egalitarian income distribution. It seems most unlikely that Federal policy-makers explicitly intended that taxes and benefits would cancel out the increased inequality and incentives produced by market forces. But, as noted above, market forces are only slowly taking effect, whereas the Federal tax-benefit system was imposed almost instantaneously in July 1990.

It would be misleading to imply that the automatic ('entitlement') nature of taxes and benefits wholly accounts for what has happened. Political and trade union pressures have also been intense. The Kohl government needs to improve living standards in East Germany if it is maintain electoral support there, and pension increases, Kurzarbeit, and other special employment programs should be seen partly in this light. Also, trade unions have pressed hard to set a timetable for parity of wages between East and West. Overall, it appears that politics have been more important than economics in the first stage of transition.

The economic dangers implied by these political priorities are fairly obvious. With wages rising faster than productivity, East Germany is in danger of losing competitive labor market advantages it might otherwise have enjoyed relative to Western countries and other countries in Eastern Europe. Immediately after the revolution of 1989, it appeared that East Germany might be poised for rapid economic growth, based on a skilled labor force which received lower wages than comparably skilled labor forces in Western countries. High levels of investment and industrial reorganisation would also be necessary. However, a high skill-low wage labor force would make investment attractive. These prospects now seem much less certain. It should be recognised, however, that the tension between political and economic 'imperatives' will also be felt in other East European countries, which may be regarded as competing with East Germany. Politicians there will also be under electoral pressure to allow wages to rise fast.

It bears repeating that the panel results reported in this paper cover only the first two years of the transition from communism and a command economy to Western-style democracy and a market (or social market) economy. But, short of another political cataclysm, the Socio-Economic Panel is likely to continue through the 1990s. So it should continue to be a gold mine of data to trace changing incomes, changing pattern of inequality and changing satisfaction levels as the transition to democracy and the market proceeds.

NOTES

1. The terms 'rich' and 'poor' are in quotation marks because they had different meanings in East compared with West Germany. The pre-revolution income distribution was considerably flatter in the East (Hauser, Mueller, Wagner and Frick, 1991).

2. An alternative hypothesis would be that the elites of the GDR would be systematically downgraded after the revolution, so that the 'rich' would get poorer.

   This hypothesis is difficult to test with available survey data. The former political elite - the nomenklatura - is not sufficiently represented in the sample to discover precisely what has happened to their living standards.

3. About 85% of respondents were interviewed in March-April. The remaining 15%, who were difficult to contact, were interviewed in May-September.

4. Only income and payroll taxes were deducted from gross incomes. As in most studies, no attempt was made to apportion the impact of sales taxes.

5. Plainly, however, there would still be some tendency to understate black income and fringe benefits. In many cases, especially for members of the nomenklatura, these components would form a considerable share of income.

6. Monthly figures have the advantage that there is no necessity to adjust for changes in household size during the accounting period. If annual figures are used, it is in principle necessary to adjust equivalent incomes for any changes in household composition during the period. In any event annual figures are not yet available for East Germany, since they take a considerable time for the data managers to calculate and check.

7. The central inflation rate from May 1990 to March 1992 was 29.6%. Figures were also estimated for three different types of households, all being within 2% of the central figure (Statistisches Bundesamt, August 1992).

8. Gini coefficients are not given in Table 6 because they would be misleading.

   The net income shares do not reflect the net income distribution (see Table 3) but only the impact of government on households in different gross incomes quintiles.

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