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Gold Mines and Mine Fields. A Summary of the LIS Conference:  
The Changing Structure of Income and Social Policy in Eastern  
Europe: A Comparative Focus

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# Luxembourg Income Study Working Paper Series

Working Paper No. 68

**Gold Mines and Mine Fields. A Summary of the LIS  
Conference: The Changing Structure of Income and  
Social Policy in Eastern Europe: A Comparative Focus**

Timothy Smeeding and Barbara Torrey

August 1991

*(scanned copy)*



DRAFT  
August 28, 1991

## GOLD MINES AND MINE FIELDS

A Summary of the LIS Conference:

"The Changing Structure of Income and Social Policy  
in Eastern Europe: A Comparative Focus"\*

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## GOLD MINES AND MINE FIELDS

## A Summary of the LIS Conference:

**"The Changing Structure of Income and Social Policy  
in Eastern Europe: A Comparative Focus"**

The recent political changes in Eastern Europe have created considerable opportunities for collaborative research among Eastern European and Western social scientists. And the newly available national household income surveys from Eastern European countries are a valuable resource both for research and for immediate use in forming public policies during the structural transformations of the economies. But the accessibility of these new surveys is both a gold mine for serious researchers, and a mine field for casual analysts [Heyns, p. 1].

Money income has played a different role in historically planned economies of Eastern Europe than in the market economies of the Western countries. In the East, the real value of money income is mediated by administered prices, shortages, and surpluses of available goods and cash and in-kind government subsidies. In the West, these exogenous factors play some role, but the value of money is determined more by market forces than government policies. The different value of income reflects the differences in the societies and governments. And without an appreciation of these differences, the comparison of East and West household income survey data will be misleading.

The Luxembourg Income Study (LIS) already has made available to social scientists household income surveys from 12 Western countries. It also has one survey from Poland (1986) and is anticipating at least three more, from Czechoslovakia (1987), Hungary (1988), and Yugoslavia (1989).<sup>1</sup> Economic and demographic variables are coded by LIS to provide a consistency across data sets of standard terminology. One preliminary working paper has been completed [Okrasa, 1989]. But the surveys from Eastern Europe present a unique challenge to the homogenization of LIS surveys. Variables with the same or similar names do not necessarily mean the same thing in the different contexts of East and West. Therefore, LIS held a conference to better understand:

- the rapidly changing social and political context for the empirical data collected by the income surveys from Eastern Europe;

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<sup>1</sup>Data from Bulgaria (1989) and Estonia (1989) also may be added to LIS in the near future.

- the strengths of these surveys as tools for public policy formation during the transition and for basic social science research; and
- the conceptual issues of using the Eastern European household income survey data for comparative purposes within the East and among the Western countries.

This summary discusses selected papers that directly address the issues of data comparability and public policy issues. The first section summarizes the conceptual issues raised by several papers at the conference. The second section focuses on one of the conceptual issues, the role governments played in providing a social safety net. The third section summarizes some of the actual comparisons of survey data among Eastern European countries, as well as several East-West comparisons, to illustrate concretely the strengths of these kinds of analyses and the issues they raise. The concluding section concentrates on the former East and West Germany in this context. Because more questions were raised than were answered in the 2-day conference and because more issues were described than resolved, many of the topics addressed at the conference and this summary will be the focus of a subsequent conference in Luxembourg in July 1992 and of our continuing work on this topic.

Several of the papers that are discussed at length in the summary are included in the appendix. Other papers presented at the conference were very interesting but in the interest of brevity are not reproduced in the appendix. These conference papers are referenced in this summary by citation without reference to year of publication. The author's addresses are listed in Appendix I for the reader to obtain a copy of the complete paper. A copy of the conference program also is part of Appendix I. Papers followed by a year of reference were not given at the conference but also may be obtained from the authors or from their respective publishers.

### I. Conceptual Issues in the Comparison of Household Incomes in Eastern Europe and Western Economies

A number of conceptual issues exist for international income comparisons among similar countries such as:

- the comparison of prices in each country that ultimately denominate the real value of money;
- the different roles of non-cash income within different economies;
- the varying biases introduced by unreported income in different countries; and
- the relationship of consumption to household income.

times in the context of international comparisons of Western countries. They also have been addressed systematically in a series of meetings between U.K. and Polish researchers [Okrasa and Winters]. They are discussed below, focusing on the four Eastern European economies which LIS has begun to study.

Problems of Price and Real Income Comparisons in Eastern Europe.<sup>2</sup> In order to make real income comparisons, national currencies must be converted to a single standard which eliminates the differences in price levels between countries. Thus, a given sum of money will buy the same basket of goods and services in all countries when converted into their respective currencies. The International Comparison of Price (ICP) program was begun by the United Nations to obtain world comparisons. The European Comparison Programme (ECP) for 1985 is part of Phase V of the ICP program and covers 20 European countries, including three from Eastern Europe.

Hungary has participated in the ICP since 1967, and Poland and Yugoslavia have joined since 1975. Therefore, there exists some historical record of how prices in these countries have moved relative to those in other countries. But the historical record also poses both a paradox and a dilemma.

The comparisons of the per capita GDP for the Eastern European countries for 1985 relative to the United States are quite different, depending on which price weights are used. If the 1975 price weights are used, the Eastern European per capita GDP is much closer to the United States than if the 1980 or 1985 price weights are used (Table 1). The differences in the results from the different price weights is likely to be the result of both the understatement of inflation in these countries in the 1970s and early 1980s. The growth rates based on volume of production measures also may be overstated. Both effects tend to overstate real income in the economies in question.

Price comparisons are key if absolute income comparisons are used. In the economic transition, inflation also is likely to be considerably higher than it has been in the past. Deregulation of subsidized prices (e.g., housing, utilities), for instance, will provide upward pressure on prices for those goods. The problems of the measurement of inflation accurately will, therefore, continue to be a problem and frustrate the accurate measurement of prices in the economy. Given the range of uncertainty in the measuring of prices in Eastern Europe historically, caution needs to be used in using purchasing power parities that were developed using weights for any year that is not current.

These pricing problems were reinforced by other conference papers (e.g., Roberts) and by the discussant (Franz). Work at the OECD, United Nations, and other international organizations will continue to grapple with this problem.

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<sup>2</sup>This section is taken largely from a paper by Alan Heston and Robert Summers, Appendix II.

Table 1. Per Capita GDP 1985 [US-100]

Country	Phase V 1985 weights	Phase IV 1980 weights	PWT4 1975 weights by Alton
	(1)	(2)	(3)
Hungary	31.2	37.4	46.0
Poland	24.5	33.2	39.2
Yugoslavia	29.2	33.7	40.4

These figures are given in Table 1 for 1985 for Hungary, Poland and Yugoslavia, each expressing per capita GDP relative to the United States. Column (1) is the benchmark estimate from Phase V for 1985. (United Nations, 1989 and Economic Commission for Europe, 1988). Column (2) is the benchmark estimate from 1980 extrapolated forward to 1985 by the Alton (1988) growth rates relative to the United States. Column (3) is from PWT4. While all column in Table 1 refer to 1985, only column (1) is based on 1985 international price weights; column (2) is based on 1980 price weights, and column (3) on 1975 weights.

Source: Heston, Summers

Getting prices right and, therefore, the value of money, is important in determining goods and services that can be bought for money. But in all countries, there are a number of in-kind goods and services that cannot be bought for money, but play an important role in the well-being of households. These in-kind benefits are an unfungible, partial substitute for money and, therefore, have to be taken into account. But these in-kind goods raise their own conceptual issues when trying to make international comparisons especially in Eastern European countries where they are more important than in the West (see following section).

Reported Income versus Unreported Income. One of the problems of research based on income household survey data is that some income is not reported. This unreported income can be legal or illegal, and can be given a variety of terms, some of which are black market, shadow, or second economy. If the unreported income has the same distribution among the population as reported income, then its absence does not change the income distribution or the poverty estimates based on relative incomes. But if unreported income is distributed differently than recorded income, then its absence creates a bias in the income and poverty estimates.

Golosi and Sik [1988] estimate that "the increasing weight of invisible incomes modifies the distribution of incomes of the population..." [Golosi and Sik, 1988]. They suggest that invisible income would increase inequality indices but may have a number of beneficial effects helping to stabilize consumption, especially under conditions of rapid inflation.

Hungarian researchers, Elteto and Vita [1989], have made an attempt to estimate the size and distribution of "hidden income" as shown in Table 2. It suggests that if "hidden income" were included in reported income:

- income distributions would be more unequal because the unreported income is disproportionately distributed in the higher-income classes;
- average incomes would be higher;
- "poverty lines", which are defined as a percentage of average income, would increase; and
- therefore, the rate of the population under a "relative poverty line" also would increase.

In summary, if the biases of unreported income exist, it means that the relative deprivation of the vulnerable groups in most societies (single-parent families, retirees, and women in general) who have lower reported income than the average is likely to be underestimated by official statistics.

Unreported incomes are likely to increase in the near term because of several factors:



**Table 2. Hungary: The Percentage Distribution of Personal Incomes in 1982 as Originally Reported and Corrected for Estimated Hidden Income**

Monthly per capita personal income	Originally reported incomes	Incomes corrected for hidden income		
		I (Low)	II (Medium)	III (High)
- 1800	6.4	5.7	5.4	5.1
1800 - 2200	9.7	8.4	8.0	7.6
2200 - 2600	13.9	12.1	11.2	10.8
2600 - 3000	15.0	13.7	13.0	12.5
3000 - 3400	14.0	13.2	12.6	11.8
3400 - 3800	10.8	10.8	11.0	10.6
3800 - 4400	12.1	12.6	12.6	12.4
4400 - 5200	9.0	10.6	11.4	12.1
5200 - 6000	4.6	5.9	6.4	7.0
6000 -	4.5	7.0	8.4	10.1
TOTAL	100.0	100.0	100.0	100.0
Mean income	3385	3618	3718	3847

Source: Elteto, Odon and Laszlo Vita, "A Micro-Simulation Experiment for the Estimation of the Possible Effect of Incomes from the Underground Economy on the Income Distribution: Methods and Results," International Statistical Institute, 47th Session, Paris, August 29 to September 6, 1989, p. 69.

- a decreasing government sector (income in the government sector is reported more accurately than non-government income because of the official records);
- an increase in the number of tax laws and, therefore, the incentive to avoid them;
- a lack of accounting procedures for private sector profits and losses; and
- an increase in unemployment, creating an incentive to moonlight or work in an informal sector.

Therefore, the bias this unreported income creates is likely to increase in the near term. And estimates of "vulnerable" populations are likely to continue to underestimate the size of these populations.

Measures of Income versus Consumption. The previous sections have discussed the problems of determining the value and level of money and in-kind income in societies where markets are underdeveloped. One way to determine the value of income is to determine what it will buy and then use consumption to measure real levels of living. Table 3 shows how consumer durables and housing are distributed by income in Poland. Nearly every household has a television regardless of income; the distribution of most other consumer durables increases with income. Housing, however, has some properties that are unrelated to income. [Heyns].

In much of Eastern Europe, household possessions may be a better measure of relative standards of living than income. The likelihood of residing in a house and the size of the house are both curvilinear with respect to income; the top and the bottom decile of household incomes enjoy the most space and the most likelihood of living in a home instead of an apartment. Farm income was also curvilinear with the lowest- and the highest-income households having the highest likelihood of earning farm income [Heyns]. Both the housing statistics and the distribution of farm income should condition generalizations about well-being based solely on income alone.

Estimates of changes in consumption in Poland [Gorecki, Starzec, and Wisniewski] suggest that consumption has dropped considerably from 1989-90, but not as much as income. Gorecki, et al also suggest that even if real consumption drops, it does not necessarily mean that customer satisfaction dropped in the same proportion because now there may be:

- an easier access to goods and a reduction to queuing;
- a higher quality of goods at competitive prices;
- a greater availability of previously rare and extremely expensive goods improves the psychological feeling of welfare.

In East Germany in 1988, consumption of several consumer durables was unrelated to income such as televisions, refrigerators, and washing machines [Steinhofel]. But the possession of color televisions and automatic washing machines was directly related to net income quintiles. And the possession of freezers and cars was even more strongly correlated with income than other durables.

Measures of Income versus Income In-Kind. The economic well-being of households is determined by their resources relative to their measurable economic needs. The economic resources include both cash and non-cash income, such as health care and housing subsidies, production for own consumption of farmers, and other forms of food, clothing, and shelter. Both income and income-in-kind vary systematically by population subgroup, thus affecting the measure of relative economic well-being within and between households. They also may differ systematically by country. The problems inherent in the measurement, valuation and imputation of non-cash income to individual household cash income on the basis of microdata files are formidable for any country, much less our countries.

Work on OECD countries and work at LIS suggests that the pattern of overall level of non-cash benefits is correlated with the level of cash benefits across the countries. The Netherlands and Sweden have relatively high cash and non-cash benefits, while the United States, Australia, and Canada are below average in both benefits. In all countries, non-cash benefits are equalizing, increasing the income share at the bottom quintile, and decreasing it at the top quintile. In every country, health and education benefits work in favor of families with children and against the households without children [Smeeding].

In Eastern Europe, in-kind income is likely to be more important than in the West because of the large government subsidies and of production for own consumption on farms. In terms of public social expenditures, the Eastern European countries spend a greater share on pensions and family benefits and a smaller share for health care and education than in Western countries (Table 4). The "Other" category in Table 4 is primarily housing subsidies in Eastern Europe and entirely unemployment benefits in the West.

Some research suggests that the largest and most complex area of income in-kind in Eastern Europe involves own production of consumption goods, such as food, and publicly subsidized goods such as rental housing and utilities. Teglarsky and Struyk [1990] estimated that Hungarian housing subsidies in 1989 total almost 7.5 percent of the GDP. Okrasa estimates that Poland subsidizes production of consumer goods about 12 percent of national income. In Yugoslavia, agricultural production for own consumption is 14 percent in urban households and 37 percent in rural homes.

The magnitude of these various kinds of in-kind benefits complicates comparisons of economic welfare among and within Eastern European countries. It also will complicate the understanding of how welfare is changing in the economic transitions. But in order to understand the full impact of changes in household income from national surveys, the changes in in-kind benefits and subsidies also will have to be considered, particularly where they differ

Table 3

## Living Conditions of Households by Distance from Median Income

Poland, 1987

Percent of Adjusted Median Income, 1987

MEAN

	< .5	.5-.75	.75-1.25	1.25-1.75	1.75-2.25	2.25+	
Farm Income	38.24	24.45	18.76	17.27	29.57	47.57	22.7%
Resides House	57.48	47.22	39.58	34.07	47.62	60.78	42.7%
<u>Housing/Property</u>							
Meters/Adult	31.3	26.9	25.2	24.3	24.9	27.9	26.0
No Kitchen	2.2	2.2	.9	.4	0.0	0.0	1.1%
Shared Kitchen	26.1	18.8	12.1	7.4	7.5	9.7	13.4%
Running Water	71.1	78.4	88.4	92.6	91.1	90.5	85.9%
Hot & Cold	50.0	53.1	68.6	76.9	76.9	76.2	66.2%
Bath	54.0	64.6	78.7	87.3	87.7	87.3	76.1%
WC	51.5	64.1	77.4	83.9	82.7	84.2	74.2%
Central Heating	41.8	52.3	65.4	75.8	70.7	74.1	63.2%
Summer Home	.6	1.3	2.4	4.3	6.9	5.6	2.8%
<u>Consumer Durables</u>							
Television	85.9	95.4	98.2	99.0	99.5	100.0	96.8%
Color TV	8.8	14.0	30.8	45.0	46.1	46.6	29.5%
Telephone	7.8	11.6	20.8	30.4	32.3	35.0	20.7%
Automobile	12.8	20.9	35.5	49.1	59.7	76.7	35.6%
New Car, '82-87	4.9	7.7	12.9	19.6	27.3	40.8	13.9%
Calculator	3.1	10.2	20.1	30.9	37.1	41.8	20.2%
Computer	.2	.9	1.3	2.1	2.8	2.9	1.3%
Tape Recorder	24.1	38.4	54.8	65.6	71.2	69.9	52.3%
Stereo Radio	5.5	12.0	21.0	36.7	42.1	37.9	22.5%
Stereo	2.6	4.3	10.0	14.4	20.1	21.4	10.0%
Video	.4	.8	1.9	3.0	4.3	7.8	2.1%
Trips Abroad	8.4	14.6	19.8	31.8	29.6	43.7	21.1%
Mean Number	.14	.27	.41	.76	.77	1.51	.48
<hr/>							
Frequency	510	1,047	2,511	990	399	103	5,560
Percent	9.2	18.8	45.2	17.8	7.2	1.9	

Source: Heyns

TABLE 4

PERCENT OF PUBLIC SOCIAL EXPENDITURES ATTRIBUTABLE TO PENSIONS,  
HEALTH CARE, EDUCATION AND FAMILY BENEFITS IN THE EAST AND THE WEST

Countries	Total	Pensions	Health Care	Education	Family Benefits	Other*
<b>A. East (1988)</b>						
Czechoslovakia	100.0	46.2	16.2	20.1	12.8	4.7
Hungary	100.0	57.8	14.0	20.6	6.3	1.3
Poland	100.0	48.7	22.2	19.8	2.7	6.6
Average	100.0	50.9	17.5	20.2	7.2	4.2
<b>B. West (1980)</b>						
Canada	100.0	23.7	28.8	31.8	3.3	12.4
France	100.0	41.6	22.2	20.7	9.6	5.9
Germany	100.0	46.9	25.3	19.8	4.4	3.6
Italy	100.0	47.5	24.1	22.5	4.0	1.9
United Kingdom	100.0	33.8	26.4	28.4	6.7	4.7
United States	100.0	39.8	22.5	31.6	2.6	3.5
Average	100.0	38.9	24.9	25.8	5.1	5.3
<b>C. West (1990) Projected</b>						
Canada	100.0	27.8	30.7	26.3	2.8	12.4
France	100.0	45.2	22.0	18.2	8.6	6.0
Germany	100.0	51.2	26.4	15.1	3.6	3.7
Italy	100.0	50.4	24.6	19.8	3.3	1.9
United Kingdom	100.0	35.1	27.6	26.1	6.1	5.1
United States	100.0	42.5	23.7	27.6	2.6	3.6
Average	100.0	42.0	25.8	22.2	4.5	5.5

\*Other is mainly public housing subsidies in Panel A, and entirely unemployment benefits in Panels B and C.

SOURCE: W. Okrasa (1990, Table 1) for Panel A; *Ageing Populations*, pp. 86-89, OECD, 1988, for Panels B and C as reported in Smeeding.

across countries (due to both initial differences and differences in the pace and extent of deregulation) and among groups (pensioners versus younger workers; farmers versus urban dwellers).

## II. Differences in Social Safety Nets Between European and Western Countries

The in-kind benefits discussed above are an integrated part of the social safety net in each country. The relative size of the current social safety nets in Eastern Europe vary in size by country. But in all cases, the net is larger in relative terms to household income than in the United States. Government money transfers in 1986 were 9 percent of average income in the United States; in Czechoslovakia, it was 25 percent; Poland, 21 percent; and Yugoslavia, 13 percent [Milanovic]. Pensions were 65 percent, 69 percent, and 91 percent of the total transfers in Czechoslovakia, Poland, and Yugoslavia, respectively (Table 5). The differences in these systems is important in making income comparisons. Since the largest part of the social transfer system in Eastern Europe is the pension programs. Child and family benefits are second, they are discussed in that order. And the third section suggests how they may change in the next several years.

Pensions in Eastern Europe. Pensions are the major component of the social safety nets in most of the Eastern European countries [Buettner]. Some of the most common features to their pensions systems are:

- little individual responsibility for retirement income meant that contribution rates, if any, by workers and specific employers, were low;
- existing pension systems favored industrial work and urban populations;
- pensions were not generally indexed and, therefore, did not keep up with inflation;
- retirement ages were set at relatively low ages, but there was no early retirement systems;
- survivor pensions were low, given high female labor force participation rates; and
- older workers often collect pensions for which they are eligible due to pension rules on effective years employed while at the same time working almost full-time.<sup>3</sup>

The pension systems in the East are facing two major challenges: one is the general aging of the populations; the other is the future unemployment patterns. The increase in

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<sup>3</sup>Workers in dangerous or dirt jobs (e.g., miners) could accumulate 2 or more years of pension credits for 1 year of actual work. When enough credits were accumulated, a worker could collect a pension and still moonlight on the job.

Table 5

## STRUCTURE OF GROSS INCOME FOR DIFFERENT SOCIAL GROUPS

	POL	YUGO	CSFR
<i>Workers</i>			
Wages	82.1	75.9	79.2
Social security	14.1	16.4	16.7
Business income	2.7	1.9	0.4
Other income	1.1	--	1.6
Gifts	--	3.0	--
Consumption in kind	--	2.7	2.1
Total	100	100	100
Private sector income	3.8	7.6	4.1
<i>Farmers</i>			
Wages	1.2	7.3	73.5
Social security	8.2	1.3	17.1
Business income	89.6	40.8	1.6
Other income	0.9	--	1.1
Gifts	--	10.4	--
Consumption in kind	--	40.3	6.7
Total	100	100	100
Private sector income	90.5	91.4	9.4
<i>Pensioners</i>			
Wages	10.9		18.0
Social security	79.9		75.7
Business income	7.7		0.8
Other income	1.6		1.6
Gifts	--		--
Consumption in kind	--		3.9
Total	100		100
Private sector income	9.3		6.3
<i>Mixed households</i>			
Wages	46.0	48.7	
Social security	12.3	10.1	
Business income	41.0	12.2	
Other income	0.7	--	
Gifts	--	4.2	
Consumption in kind	--	24.7	
Total	100	100	
Private sector income	41.7	41.2	
<i>All households</i>			
Wages	53.0	62.2	69.5
Social security	20.7	13.3	25.4
Business income	25.2	8.2	0.6
Other income	1.1	--	1.7
Gifts	--	3.6	--
Consumption in kind	--	12.7	2.8
Total	100	100	
Private sector income	26.3	24.5	5.1

For definitions of different income sources see Annex 2.

Note: Private sector incomes are all sources of income except wages (state sector) and social security.

Source: Milanovic

unemployment will not only have an immediate impact on income of the unemployed, but is likely to affect their future pension levels. Although increasing the retirement age will make demographic sense in the long run; in fact, in the short run, these systems may have to respond to high unemployment rates with early retirement systems, such as those developed in the 1970s and 1980s in Western Europe.

Child and Family Benefits: East and West. One of the major differences between Eastern and Western societies is the role of child and family benefits [Kammerman and Kahn]. Child and family benefits, in general, have been more comprehensive and far more generous in Eastern Europe than in Western Europe. In Eastern Europe, family benefits constituted about 15-25 percent of average one-earner household incomes in the late 1980s and even higher fractions of the incomes of vulnerable families. The OECD 1985 average was 7.5 percent.

In Hungary, family benefits constitute between 11 and 18 percent of family income for families with two or more children. Here, family benefits were one-third of the official minimum subsistence level and 57 percent of family income for families with three or more children. In Czechoslovakia, family benefits were about 16 percent of family income for a two-child, one-earner family and 50 percent for those with three or more children. East German family benefits before reunification met approximately 25 percent of the costs of a child.

International comparisons of well-being should take into account the different roles of family benefits in the various countries compared.

- Family allowances were clearly part of the wage package in Eastern Europe before 1989. Eligibility for these benefits was limited to those in active employment or participation in social insurance systems. Therefore, an increase in unemployment is likely to be disruptive to the family and child benefit system, as well as the labor markets.
- The industrial enterprises played a major role in providing child care services and parental leave in Eastern Europe. And, therefore, the change in the structure and ownership of enterprises in the economy is likely to also affect the role of family benefits in the society.

Future changes in a number of family benefits, such as long parental leave policies, will not be reflected in future income household surveys. Yet given the prominent role they have played in Eastern Europe in the past, their reduction would be a major change in the quality of life of families and children in Eastern Europe.

Income Support During the Transition. The social safety net that may be appropriate for vulnerable populations in the long term may not be the most responsive one in the short term [Barr, Appendix III]. But social measures taken in the short term should not be inconsistent with the desired goals in the long term. For instance, in the United States, many transfer



programs that were begun in the 1930s during the great Depression became the foundation for the permanent social safety net after World War II.

In the immediate future, useful objectives of a temporary transfer program and useful criteria for evaluating such programs might be:

- Poverty Relief. Each country may define poverty differently as a social minimum, subsistence minimum, etc. Whatever the level, the social safety net should prevent people from falling below this minimum level. This criteria has both political and operational significance.
- Macroeconomic Efficiency. The costs must be consistent with the public budgets. That may mean retargeting benefits that are going to people who are above the poverty line to those who are below it in the short run to maximize their effectiveness and minimize their cost.
- Microeconomic Efficiency. At the same time, the social safety net must minimize the disincentives to work that are inherent in transfer programs. People must always be able to gain considerably more from working than from the social transfer system in order to promote a highly productive and active labor force.
- Administrability. If the social safety net is to effectively protect vulnerable populations during economic transitions, then it must be simple and easy to administer. Complex eligibility rules will take too much time to administer and make the system too inflexible to respond quickly to pockets of vulnerability.

Once the economic transition has taken place and the need for quick, short-term relief for vulnerable populations is reduced, then the macro- and micro-economic efficiencies of the social transfer programs can be fine tuned. The eligibility rules can be made more stringent, and the benefits made more generous. But in the meantime, a simple transfer program targeted on the populations below a minimum income will be an important and necessary component of any structural transformation.

Strategic policies might include:

- Protecting the Poverty Line: The minimum benefit should be fully protected against price inflation;
- Closely Examining Funding Regimes: Social insurance contributions should be shared between worker and employer and should appear as an explicit deduction on the worker's payslip;
- Structuring Unemployment Benefits: The duration of benefits should be limited and should be at or above the poverty line but not high enough to be a work disincentive;

- Reducing the Number of Invalidity and Retirement Pensioners: Stringent earnings tests for pensions below the normal retirement age would help keep people in the labor force longer;
- Reducing the Level at which Family Allowance is Paid: In general, the family allowance is well-targeted on the needy, but the level of family allowance in most CEE countries is high by OECD standards. Policy should concentrate on reducing family allowance as a fraction of the average wage, paying it to the mother, and supplementing it by income-tested family support; and
- Taking Account of Intra- and Inter-family Transfers, both Cash and In-Kind (e.g., Sharing of Living Arrangements): During the transition, these informal support systems may be the most effective means of cushioning economic decline. Policies that are designed to assist the needy may need to take account of these differences if they are to produce their largest effect on income insufficiency.

### III. International Income Comparisons Among East and West

Several papers at the conference used Eastern European household income data to analyze comparatively the income distribution and poverty issues in these countries [Vecernik, Appendix V; Milanovic; Okrasa; and Szanto]. Comparative analysis is useful to demonstrate what income patterns are unique to each country and what are common patterns in the historically-planned economies. Therefore, these papers illustrate the enormous potential in this comparative analysis. They also illustrate some of the issues that have been discussed above in doing international comparisons among countries with very different income and welfare structures.

Some Characteristics of Eastern Europe Household Surveys Current household surveys in Czechoslovakia, Hungary, and Poland [Czechoslovak Social Stratification Survey (CSSS), Hungarian Income Study (HIS), and Polish Household Budget Survey (PHBS)], share many characteristics of household surveys in the West [Garner, et al., Appendix IV]. They use national sampling frames and standardized questionnaires; they also ask detailed questions about household structure and economics (Table 6). In fact, some periodic surveys are more comprehensive than in the west because they collect data on a broader range of issues in addition to income and expenditures, such as consumption, home production, and other measures of well-being. As in the West, such data are used by researchers and policymakers to describe the society as a whole and to identify those members of the society least (or most) well-off.

Income data are collected in each of the surveys; cash and some non-cash incomes are included. Official income data are verified in Czechoslovakia, both before and after taxes. Questions concerning private income are included, but responses are not verified and, therefore, are assumed to be underreported. In Hungary, income from all sources is included,

Table 6

Selected Characteristics of National Household Surveys of Economic Status<sup>1</sup>.

Country	Name of Survey	Year of Survey Examined	Frequency	Sample Size		Comments
				Households	Persons	
Czechoslovakia	Social Stratification Survey (CSSS)	1984	periodically	25,000	65,000	social stratification income, income by employer of living
Hungary	Income Survey (HIS)	1983	every 5 years	14,790	43,744	income income verification by employer
Poland	Household Budget Survey (PHBS)	1986	quarterly/annually	25,632	79,725	expenditure income verification by employer durables income
United States	Current Population Survey (CPS)	1989	monthly, income from March supplement only	60,000	113,000 <sup>2</sup>	income employment unemployment

<sup>1</sup> More details are provided in Appendix 1 of Garner, et. al. for the first three surveys.

<sup>2</sup> Persons age 16 years and over

Source: Garner, Notes: Appendix IV.

both official and non-official wages, self-employment (farm and non-farm) income, pensions, and cash and non-cash benefits. In the HIS, there is an attempt to ascertain the incomes from shadow economies and moonlighting. Income from such sources can be quite substantial. In addition, in-kind income from the consumption of home farm production is generally included. For Poland, income of the non-farm self-employed and from the economic activity of persons involved in the shadow economy are not captured, although the value of consumption of home farm production is included.

The primary strengths of the CSSS, HIS, and PHBS include their collection of national data on the economic status of households or economic consumer units in these countries, with income and sociodemographic data defined similarly. Each of these surveys is designed to collect general data, which are more comparable than are their specific types of microeconomic data. The CSSS is used to provide information on social stratification and mobility. The HIS is designed to produce the most detailed income data. In contrast, the primary strength of the PHBS is that it is designed to provide the most comprehensive and timely picture of an economic consumer unit's material status through the collection of expenditure, household durables, income, asset, and liability data.

In general, these Eastern European surveys have considerable strengths that should be remembered as the societies go through major economic and social changes during the next decade:

- they all have been conducted for many years and, therefore, provide considerable longitudinal information concerning the economic status of households in these countries;
- past estimates of money incomes are likely to have been more accurate than in Western countries using household surveys because most people were salaried and most income estimates were verified by official records; and
- the definitions of economic well-being are, in general, broader and more comprehensive than in the West.

These are the surveys that were used in some of the analysis summarized below. These are also the surveys that will be entered into the Luxembourg Income Study Data Base and made available to researchers.

Some Comparisons of Eastern European and Western Household Survey Data. Initial comparisons using LIS data for western countries (and Poland) and household survey data in Czechoslovakia and Hungary by Vecernik (Appendix V) illustrate some of the determinants of household and per capita income. Multiple classification analysis of log of household and per capita income provides some insight into the difference between Eastern European countries and Western industrial countries as shown in Table 7 by Vecernik. The table suggests that there are three types of countries:

Table 7 Multiple classification analysis of log of household and per capita income in some countries (households with the male head only)

	USA 1986	FRG 1981	Ne- ther. 1983	Italy 1986	Pol- and 1984	CSFR 1984	Hun- gary 1985
<b>Household income</b>							
Coefficients eta							
Education of man	0.33	0.35	0.36	0.36	0.10	0.12	
Education of woman	0.37	0.29	0.33	0.02	0.07	0.22	
Age of man	0.21	0.12	0.15	0.17	0.11	0.16	
Number of act. earners	0.28	0.24	0.40	0.43	0.31	0.55	
Number of children	0.10	0.09	0.10	0.08	0.04	0.29	
Coefficients beta							
Education of man	0.26	0.30	0.24	0.33	0.08	0.06	0.17
Education of woman	0.19	0.15	0.13	(0.01)	0.10	0.08	0.16
Age of man	0.20	0.13	0.19	0.19	0.07	0.19	0.23
Number of act. earners	0.21	0.26	0.42	0.39	0.32	0.50	0.19
Number of children	(0.03)	0.11	0.14	0.05	(0.01)	0.25	0.16
R <sup>2</sup>	0.26	0.23	0.31	0.32	0.11	0.38	0.18
<b>Income per capita</b>							
Coefficients eta							
Education of man	0.33	0.27	0.35	0.37	0.14	0.11	
Education of woman	0.21	0.25	0.21	0.02	0.09	0.08	
Age of man	0.15	0.16	0.24	0.03	0.27	0.42	
Number of act. earners	0.01	0.29	0.32	0.32	0.25	0.06	
Number of children	0.49	0.57	0.65	0.41	0.54	0.69	
Coefficients beta							
Education of man	0.29	0.24	0.24	0.31	0.06	0.14	0.21
Education of woman	0.07	0.13	0.06	(0.01)	0.02	0.06	0.18
Age of man	0.14	0.09	0.10	0.16	0.09	0.15	0.12
Number of act. earners	0.08	0.17	0.16	0.28	0.24	0.22	0.18
Number of children	0.50	0.58	0.64	0.48	0.55	0.72	0.50
R <sup>2</sup>	0.37	0.46	0.53	0.40	0.38	0.57	0.38

Sources: LIS data, Social Stratification Survey 1984 (Czechoslovakia), Family Budgets 1985 (Hungary), as reported in Vecernik.

All coefficients beta except ones in parantheses are significant on the 0.000 level.

Source: Vecernik, Appendix V.

- USA and FRG where the person's personal characteristics, such as education, are more important than the other variables in explaining the levels of household income;
- The Netherlands and Italy, where the number of active workers is the most important determinant of household income. Education is second; and
- Poland and Czechoslovakia, where the number of active workers is the most important, education is one of the least important determinants of household income. In Hungary, education and labor force participation are both important.

Once household incomes are converted into per capita income, differences among the individual countries become somewhat clearer. In all of them, the number of dependent children is the main factor of income inequality. But in the Western countries (including Hungary) the number of children is twice as important as the education of the male head of household in explaining the variance in per capita income; in Czechoslovakia and especially in Poland this ratio is 5 to 10 times larger, due to the minimal influence of education in Poland and the importance of demographic factors in Czechoslovakia. Czechoslovakia seems to be an exception, even among the Central European Countries.

Households with one earner were likely to have income substantially below the average income in all three Eastern European countries studied. Two-earner families in both Poland and Czechoslovakia were likely to have income above the mean. This would suggest that single-parent households are likely to have household income below the mean in these countries. In Czechoslovakia and Hungary, households with no children were more likely to have less income than households with two or three children, perhaps reflecting the generosity of family benefits in these nations. In Poland, the number of children makes little difference to the level of household income [Vecernik, 1990].

All of the observations in Table 6 are for households headed by males only. And, therefore, these estimates provide only a partial view of which groups may be the most vulnerable in Eastern Europe. Subsequent research by Dr. Vecernik on the analysis of earnings in Czechoslovakia and Poland suggested that another important factor in predicting the level of earnings was the gender of the earner. Men's earnings were, on average, above the mean income, and women's earnings were below the mean in both countries. This also was true for other Western countries studied [Vecernik]. Earnings also were positively related to the age of the household head with income increasing with age up to age 59 years. Young household heads were at an income disadvantage, which was especially important in Hungary.

Not only do the countries of Eastern Europe differ considerably from Western Europe, they also differ from each other [Szanto]. For instance, Hungarian and Polish income inequalities are both reinforced by the redistributive social-economic system, but have different causes within that system. Households without a working head are more likely to be in the lowest income group in Poland than in Hungary. Household heads with vocational and tertiary education had a little better income position in Hungary than in Poland. When the

household head is self-employed, the household income in Hungary is likely to be higher than in Poland. However, in both Poland and Hungary, employment by the household head in the service or cultural area increased the likelihood of having a worse income position than employment in the "productive" sectors.

#### IV. Conclusion and Next Steps

Most international income comparisons have to make comparisons across more than national borders. The comparisons also cross linguistic and cultural borders. But income comparisons between the two parts of Germany, just before they were reunited, offers an almost unique opportunity to compare the income patterns of two countries that had been one until 45 years ago [Hauser, Mueller, and Wagner, Appendix VI].

As can be seen in Table 8, both the patterns of income and demographics of the countries differ. There were relatively more one-person households and elderly in West Germany than East Germany; there were relatively more couples with children in East Germany. And the children had higher equivalent income relative to the average individual income in East Germany than in West Germany. The elderly had better relative incomes in West than in East Germany.

But there are problems with these income comparisons in relative terms. If access to goods and services has a similar distribution as money, then relative comparisons would not be distorted. But if there is a privileged group with more access than other groups in a country, it would bias the intra and international comparisons with groups that are not privileged. There also are problems if there are differences in the structure of consumption between the various groups and between East and West. And, of course, if the distribution of unreported income is different than reported income, then that would also create some bias. Finally, there is a problem of using equivalence scales that were derived for one country as an equivalence scale for another country.

Despite the problems involved in doing relative comparisons between two countries such as East and West Germany, there are even more problems in comparing the levels of income. For instance, what exchange rate should be used? How should account be taken of the difference in the "time costs" needed to purchase goods? And what about the differences in the quality of available goods or the quality of social insurance promises? Given the number of conceptual issues involved in comparing income patterns from different countries, Hauser, Mueller, and Wagner concluded that comparing levels of income in East and West Germany (that share more in common than any other Eastern and Western Country) is, at this time, too difficult. And although there are difficulties in comparing income distributions and other relative income measures in East and West Germany, they can be managed.

The conclusion of Hauser, Mueller, and Wagner, who have studied the two most compatible (former) East and West countries, is a powerful warning to other LIS researchers.

Table 8. Share of persons in various household types of total population and ratios of average equivalence income (1) of groups to the average equivalence income of total population

- in % -

Persons in Household types	share of persons in household in total population	ratio of average equivalence income of groups to total average equivalence income	
		Equivalence income 1	Equivalence income 2
One-person household			
West Germany	15.9	120.5	106.9
East Germany	10.3	88.4	76.2
Couples without children			
West Germany	18.9	124.5	119.3
East Germany	17.7	110.3	103.1
Couples with children all under 18			
West Germany	24.3	81.5	89.9
East Germany	35.5	92.6	98.5
One-parent Families with all children under 18			
West Germany	2.8	66.8	75.0
East Germany	2.2	79.5	83.9
Other households with at least one child under 18			
West Germany	14.2	70.4	77.7
East Germany	13.0	91.9	98.1
Other households			
West Germany	23.9	108.3	107.3
East Germany	21.3	117.8	115.0
Persons	share of persons in total population	ratio of average equivalence income of children and elderly to total average equivalence income	
		Equivalence income 1	Equivalence income 2
Children under 18			
West Germany	17.5	74.7	83.5
East Germany	22.4	89.3	95.8
Elderly over 60			
West Germany	22.2	97.2	97.7
East Germany	18.3	83.3	76.5

Source: Hauser, Mueller, Wagner, Appendix VI. Own calculations from SOEP-West, wave 6, 1989 SOEP-Ost, wave 1, 1990

(1) Equivalence income 1 is calculated by using an equivalence scale derived from the West German social assistance regulation; equivalence income 2 is calculated by using smaller weights as explained in the text.



Scholars who make international comparisons among Eastern European countries or between Eastern and Western countries should do so with extreme caution until income becomes a better common denominator among economies. Relative comparisons with and between countries in the East, and comparisons over time within and among nations are more manageable. But, even relative comparisons must be done with caution, taking into account the money versus non-money concerns and caveats expressed briefly in the summary above and in detail in the papers given in this conference and listed in Appendix I.

### Next Steps

At the end of the conference, Marian Wisniewski (University of Warsaw, Poland) reacted to our conference discussions and suggested strategies for LIS to follow in future East-West comparative work:

- Concentrate on social protection and poverty as guideline issues to explore in a cross-national context;
- Monitor changes in social security systems and their impact on various population groups;
- In addition to cash income, include income in-kind in measuring well-being;
- Be sure to update the LIS data with newer data from Eastern European nations as quickly as it becomes available; and
- Communicate the results of these efforts to policymakers, government official, and the popular media in an appropriate fashion.

Using these principles as overall guidelines, LIS is just beginning a multi-year project, under the sponsorship of several research organizations, to improve our understanding of the changing economic and social policy institutions of Eastern Europe.<sup>4</sup> The project is centered around five Eastern European teams of national researchers and data collectors, each charged with exploring the issues which Wisniewski raised in his reaction to the conference. The next meeting of our research teams is scheduled for July 1992.

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<sup>4</sup>These institutions include the Ford Foundation, the U.S. National Institute on Aging, and the U.S. Agency for International Development.

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