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Social Safety Net and the Poor during the Transition

The Case of Bulgaria

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Bulgaria's social safety net is not well targeted: too many benefits accrue to better-off households rather than to the poor. Comprehensive reform is needed, focusing on pensions, unemployment benefits, child allowances, and social assistance.

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Summary findings

Using data from the 1992 Bulgarian household budget survey, Hassan and Peters analyze the structure of income in Bulgaria, identifying who the poor are and how they are reached by the social safety net. Their main findings about household incomes:

- Social transfers provide an extremely large component — 24 percent — of household income per capita. That is roughly on a par with the share in other Eastern European countries but more than 40 percent higher than the share in OECD countries.
- Wage earnings have declined as a source of income, reflecting the contraction of the state sector. Wage income as a share of income in Bulgaria has declined to only half the OECD level.
- Income from self-employment has increased, reflecting the surge in small-scale retail establishments.
- Income is considerably less concentrated in Bulgaria than in other lower-middle-income countries.

The authors' main findings about the poor (the bottom

20 percent in terms of household income):

The head of household in a poor home tends to be older, a woman, poorly educated, and unemployed. Poor households are not necessarily larger households in Bulgaria, unlike in other developing countries.

The sources of income in poor Bulgarian households reflect other findings:

- The poor depend for more than half their income on social benefits (especially pensions), indicating the importance of the social safety net.
- The social safety net is *not* well targeted. Most social benefits are pro-poor, in the sense that they improve income distribution, but many benefits accrue to better-off households. There is substantial scope for better distribution of income.

Hassan and Peters conclude that comprehensive reform of social benefits is needed, focusing on pensions, unemployment benefits, child allowances, and social assistance.

This paper — a product of the Country Operations Division, Europe and Central Asia, Country Department I — is part of a larger effort in the department to analyze the social dimensions of stabilization and adjustment. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Faith Smith, room H5-245, extension 36072 (34 pages). May 1995.

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**SOCIAL SAFETY NET AND THE POOR
DURING THE TRANSITION:
The Case of Bulgaria***

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The World Bank

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I. Introduction

The transition from a command economy to a market economy has had a dramatic effect on the welfare of individuals and households. In Bulgaria, as in many other transitional economies, while some households have gained from the restitution of properties and the boom in services, many households have faced a decline in income and a rise in income insecurity. It is widely believed that the popular consensus behind political and economic change could be undermined by sharp downturns in economic welfare and/or an extreme widening of income inequalities. This, in turn, could lead to a resurgence of popular support for a return to "socialism" or a rise in nationalism. Thus, neglecting the social effects of the transition could derail the societal and political consensus behind reform, leading to social conflict and political instability.

To help ease the negative effects of the transition on household welfare, great emphasis has been placed on protecting the most vulnerable households by establishing an effective social safety net. Prior to reforms, Bulgaria, like most economies in transition, had a comprehensive social safety net, including a commitment to and virtual realization of full employment, comprehensive retirement and disability pensions, and free health and education services. No unemployment benefits existed and social assistance was virtually non-existent, as full employment and social insurance rendered them unnecessary. Furthermore, explicit income inequality was very low, compared to market economies, as the explicit wage scale

was highly compressed. However, some elements of society had greater access to in-kind income, to rationed commodities, to western goods, and to better quality medical services, indicating that implicit income inequality was higher than measured for former communist societies.

The objective of this paper is to analyze the sources of income, income inequality, the characteristics of lower income groups and their implications for the social safety net in Bulgaria, in the midst of the transition. The Bulgarian case is a good case study for several reasons. First, Bulgaria suffered a large external demand shock as a result of the transition--possibly the largest in Eastern and Central Europe--due to its trade dependence on Council of Mutual Economic Assistance (CMEA) economies and other countries (Libya, Iraq, and Federal Republic of Yugoslavia) affected by UN sanctions. As a result, it has endured one of the largest drops in output and incomes in the former CMEA countries. Second, it launched a comprehensive liberalization and stabilization program in February 1991, comparable in scope to the big bang of Poland at the beginning of 1990. Bulgaria also has had a significant retrenchment of the state sector, with public employment falling from 4.4 million in 1989 to 2.3 million by the third quarter of 1993, a drop of 47 percent. Recorded unemployment, at about 16 percent, is also among the highest in Eastern and Central Europe. Finally, Bulgaria has struggled with putting into place a viable social safety net. While unemployment compensation and social assistance programs have been established, effective targeting of these programs has proven elusive and contentious. While small changes have been made to the pension scheme, comprehensive reform has proven

politically difficult, as have reforms of sick pay, maternity benefits and child allowances. As a consequence, the social safety net is perceived as both too costly and ineffective in reaching the most vulnerable groups in society.

This paper attempts to shed some light on the structure of income and income inequality in the midst of Bulgaria's transition. It also looks at who the poor are and how effectively they are reached by the social safety net. This paper, like all analyses of incomes and expenditures in transitional economies, suffers from measurement problems, underreporting of "private incomes" (such as self-employment and property incomes), and methodological defects derived from measuring incomes and expenditures during bouts of high inflation. Nevertheless, important insights can be gained from the available data to guide policymakers through this difficult period.

The analysis is based on a recent household budget survey--1992 Individual Budget of Households, compiled by the National Statistical Institute (NSI) of Bulgaria. The sample was constructed as a two-tier random sample, involving 2,508 households (or less than one percent of households). It is based on a sample frame developed from the 1985 Population Census. The sample was constructed from a sample of 418 sectors or Census districts: each district contains about 90 households and 6 households were sampled from each sector.¹ Each household was paid a nominal amount, Leva 100 per month (about US\$4.00), for participating in the survey. While the sample was "random", according to the

^{1/} The sample of 418 sectors were taken from a 'control' sample of 4,000 sectors which was, in turn, taken from the 1985 Population Census of 40,000 sectors, including approximately, 3.2 million households.

NSI, minorities, particularly gypsies, are probably underrepresented. Moreover, the very detailed nature of the questionnaire can lead to a high refusal rate, increasing the likelihood of sample bias. However, officials of the NSI assured us that the sample adequately represented the incomes and expenditures of the Bulgarian population.

The remainder of the paper is structured as follows: Section II discusses the concept of and measurement of income, used in the survey and our analysis, the level of income, the composition of income and income distribution. Section III compares Bulgaria's income distribution with other developing, Eastern European and OECD countries. Section IV analyzes household characteristics by income decile and focusses on the salient features of lower income groups. Section V addresses the question of who benefits from the social safety net in Bulgaria. This section also suggests some improvements in the targeting of social benefits, drawing upon the characteristics of lower income households identified in the previous section. Finally, Section VI provides concluding remarks and policy implications.

II. Household Income: Its Level, Composition, and Distribution

Income Measurement. The concept of income employed in the NSI survey includes seven major sources - earned income, property income, social insurance, social benefits, income from sales, other sources of income, and income from loans, credits and savings. Some of these sources, such as income from sales of property, borrowing and saving withdrawals, do not belong to current income. The inclusion of these sources

potentially alters income distribution in Bulgaria, as they are typically concentrated in the richest groups. Therefore, in this paper, our definition of current income excludes these components.² Later in the paper, we assess the effect of this exclusion.

The income unit which corresponds with the income concept employed in the Bulgarian income survey is the household. The household concept adopted in the survey includes one-person households, one family households, and households of more than one family who make common provision for food or other essentials for living. This definition corresponds closely to the definition of the 1980 World Population Census Program (United Nations, 1978). To take into account the differences in households size, our analysis is based on household income per capita. We have not used adult equivalences in this analysis, as the construction of such equivalences is fraught with a number of conceptual and practical difficulties.³

Household incomes have fallen significantly in real terms during the transition. GDP has fallen by nearly 30 percent, since 1989 when the political transition began. A

^{2/} This accords closely to the concept of 'available household income' employed by both the United Nations (1977) and the ILO (1984). This concept includes salaries and wages in cash and in kind (excluding social security and private insurance contributions both by employees and employers), net income from self-employment including consumption of own production, income from personal property and investment including imputed rent from owner-occupied dwellings, social security and private insurance transfers, minus personal income and property taxes. However, the Bulgarian survey does not include imputed rents. Ultimately, total consumption must be regarded as the best indicator for what we really want to measure. As Nissen (1984), Lipton and Ravallion (1993) noted, it reflects not only current total household income but also past savings, windfalls and expectations of future income. Unfortunately, comprehensive consumption data are not yet available for 1992 and therefore, we rely for this analysis on income only.

^{3/} The literature on the best procedures is controversial. For a survey, see Ravallion (1992).

calculation using household income surveys from earlier years indicates that household incomes have probably fallen by roughly the same amount, although comparing household incomes since the onset of the transition is extremely difficult because of the dramatic changes in the structure of remuneration and taxation in the past few years. In any case, this analysis suggests that most households have suffered significant income losses and much greater uncertainty over the future--under the old system employment was guaranteed until retirement when one was eligible for a comfortable pension.

The Level of Income. Using the 1992 household survey, average household income per capita is estimated at Leva 16,803, about US \$ 710 (see Table 1). The level of income in the urban and rural sectors can be compared to the national level. The survey includes 2202 households: 1386 households (or 63 percent) are urban households; and, 816 households (or 37 percent) are rural.⁴ This geographical distribution is roughly the same as the 1985 Census figures of 65 percent for urban households and 35 percent for rural ones. The average household income per capita in the rural sector is Leva 19,722 (about US \$ 832) and it is 30 percent higher than the urban average. Furthermore, for each income decile rural household income is higher than urban (see Table 1). The difference in income level between the two sectors is statistically significant.

4/ The definition of urban/rural is based on the type of settlement (town versus village). This distinction is a state decision which is not entirely based on the size of the population (the well-known 5000 people cut off line). In other words, some villages have more population than some towns.

Table 1: Average Household Income Per Capita, 1992 (Leva)

	<u>National</u>	<u>Urban</u>	<u>Rural</u>
Average Income Per Capita (Leva)	16,803	15,085	19,722
Standard Deviation (Leva)	9,137	7,477	10,813
Minimum Income	3,324	3,324	3,526
Maximum Income	156,006	78,055	156,006
Coefficient of Variation	54	50	55

Memo Item: Leva/US\$ (1992 average) 23.7

Source: World Bank estimates from 1992 Individual Budget of Households Survey, NSI.

The Composition of Income. In 1992, nearly half (40 percent) of average household income in Bulgaria is derived from wages and salaries, excluding the wage component in self-employment income and royalties (see Table 2). Self-employment, including 'incomes from sales of farm produce' and 'in-kind income', accounts for more than 30 percent of household income. As is common in many transitional economies, social insurance is an extremely large component of household income, accounting for 24 percent. Of this, pensions alone account for about 21 percent; this is the result of Bulgaria's large

Table 2: Bulgaria: Composition of Average Household Income Per Capita by Sources of Income, 1992

Income Source	Income (Leva)	Percent
1. Income Earned	<u>7098</u>	<u>42.2</u>
1.1 Wage and salary from primary	6334	37.7
1.2 Salary from secondary employment	64	0.4
1.3 Other income, besides salary	363	2.2
1.4 Self-employment income	338	2.0
2. Property Income	<u>42</u>	<u>0.2</u>
2.1 All types of rents, copyright	36	0.2
2.2 Interest	2	0.0
2.3 Dividends	4	0.0
3. Social Insurance	<u>4014</u>	<u>23.9</u>
3.1 Unemployment compensation	74	0.4
3.2 Pensions	3492	20.8
3.3 Children's allowance	295	1.8
3.4 Compen. for tempor. incapacity for work	79	0.5
3.5 Compen. for pregnancy, maternity leave	74	0.4
4. Social Benefits	<u>56</u>	<u>0.3</u>
4.1 Lump-sum family benefits	3	0.0
4.2 Disabilities and illness	11	0.1
4.3 Other lump-sum benefits	18	0.1
4.4 Scholarships	24	0.1
5. Income from Sales	<u>605</u>	<u>3.6</u>
5.1 Farm produce	489	2.9
5.2 Other products	18	0.1
5.3 Property	98	0.6
6. Other Sources of Income	<u>4988</u>	<u>29.7</u>
6.1 Insurance	25	0.1
6.2 Gifts	438	2.6
6.3 Lottery, raffle, etc	3	0.0
6.4 Income home-made goods	9	0.1
6.5 Others	36	0.2
6.6 In-kind income	4477	26.6
	<u>16803</u>	<u>100.0</u>

Source: World Bank estimates based on 1992 Individual Budgets of Households Survey, NSI.

old-age dependency and the surge of retirements that has occurred during the transition. Children's allowances account for an additional 2 percent. Property income and 'social benefits' each account for only a negligible proportion of household income.

To facilitate comparisons with other countries, the sources of income are consolidated into four major types of income: wages and salaries, social transfers, self-employment income, and other income (see Table 3). We have compared the sources of household income in 1992 with the same survey for 1989 and with some other comparator countries. Since 1989, wage income has declined as a source of income, reflecting the contraction of the state sector. Self-employment income has increased dramatically, nearly doubling due to the surge in small-scale retail establishments that have been a key feature of the transition. Social transfers have remained virtually unchanged.

Comparing Bulgaria with other economies reveals several stylized facts. First, wage income is less important in Bulgaria than in other Eastern European countries. This result is not surprising given the slow pace of structural reform, which has resulted in one of the highest unemployment rates in the region. Moreover, the share of wage income in Bulgaria is only about one half of the level of OECD countries. Second, the relative shortfall of wage income in Eastern European countries is compensated by a higher share of social transfers. Social transfers are over 40 percent higher in Eastern European countries compared to the OECD group. For Bulgaria, these transfers are roughly on par with other Eastern European countries. Third, Bulgaria's self-employment is a very large share of total

Table 3: The Structure of Income: Bulgaria and Selected Comparators

		Wages and Salaries	Social Transfers	Self-employment	Other Income
Bulgaria:	1992 ^a	38.1	24.2	31.6	6.1
	1989 ^b	56.5	21.2	14.7	7.6
E. European Countries ^b					
	Czechoslovakia	69.5	25.4	3.4	1.7
	Hungary	55.0	22.4	14.0	8.6
	Poland	57.2	22.1	19.6	1.1
	Average ^b	<u>60.6</u>	<u>23.3</u>	<u>12.3</u>	<u>3.8</u>
OECD Countries ^b					
	Australia	71.2	9.8	8.5	8.0
	Germany	63.1	16.5	16.7	1.1
	Sweden	64.5	29.3	3.7	2.7
	UK	72.0	17.2	4.5	2.7
	USA	75.8	8.1	6.7	5.8
	Average ^b	<u>69.3</u>	<u>16.2</u>	<u>8.0</u>	<u>4.1</u>

^a Bank staff calculations from 1992 Individual Budget of Households.

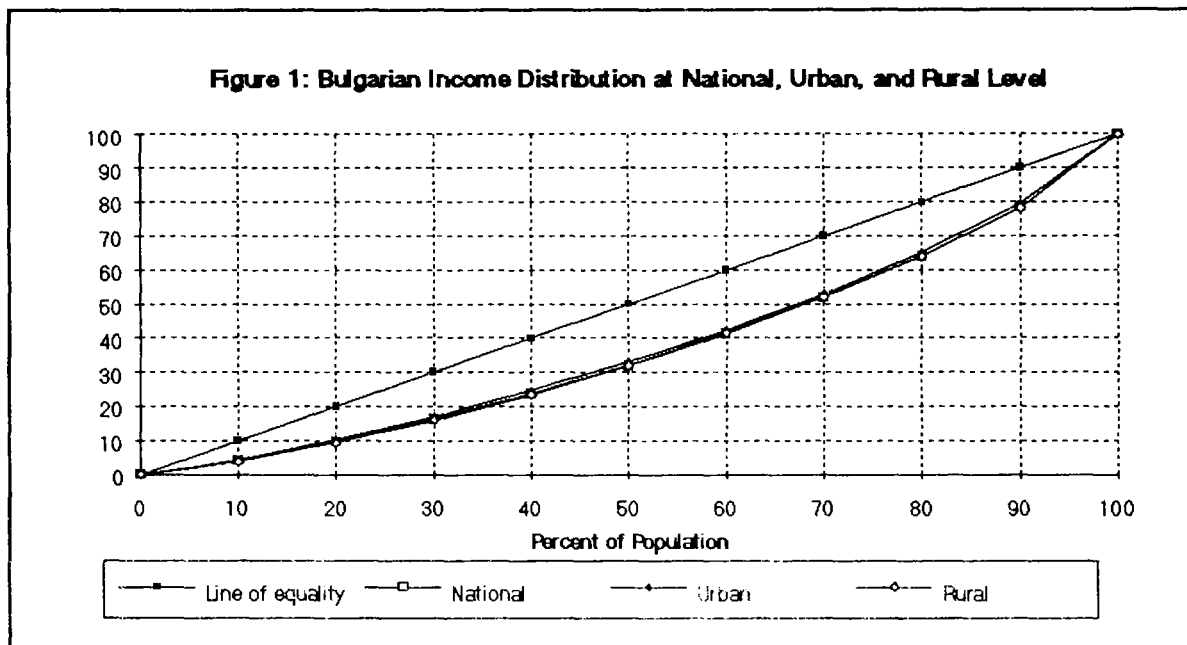
^b See Milanovic (1992), Tables 1 and 4.

^c Includes self-employment, in-kind income, farm produce and home-made goods (see Table 2)

income, far larger than both other East European countries and the OECD.

The Distribution of Income. The distribution of household income per capita by income decile is shown in Table 4. The Gini coefficient is 25.8 percent, indicating a low

income inequality.⁵ Nevertheless, the decile distribution ratio -- the share of the bottom 40 percent in relation to the share of the top 20 percent-- is 0.66, indicating that the poorest 40 percent of households earn only two thirds of the earnings of the top quintile. While income levels vary significantly between urban and rural areas, there is no significant difference between them in terms of income distribution (see Table 4 and Figure 1). Figure 1 shows the Lorenz curve for household income per capita at the national level, as well as for the urban and rural sectors. The fact that income inequality is not significantly different between urban and rural areas is unusual for countries at Bulgaria's level of income.



A Broader Definition of Income. As mentioned earlier, sales of assets, both real (such as the sale of property) and financial (such as savings withdrawals), are included

^{5/} The subsequent section compares Bulgaria's income distribution with other low middle-income, East European, and OECD countries.

Table 4: Distribution of Annual Household Income Per Capita (% , Leva)

Income Decile	National		Urban		Rural	
	Share (%)	Average (Leva)	Share (%)	Average (Leva)	Share (%)	Average (Leva)
Bottom	4.2	6,941	4.5	6,816	3.8	7,507
Second	5.6	9,361	5.9	8,882	5.6	11,020
Third	6.5	10,900	6.7	10,101	6.6	13,037
Fourth	7.4	12,387	7.6	11,359	7.5	14,789
Fifth	8.3	13,928	8.4	12,654	8.5	16,622
Sixth	9.3	15,643	9.4	14,095	9.5	18,663
Seventh	10.6	17,778	10.5	15,844	10.5	20,856
Eight	12.1	20,380	12.1	18,192	12.0	23,608
Ninth	14.3	24,121	14.4	21,598	14.2	28,265
Top	21.8	36,653	20.7	31,357	21.8	42,784
Decile Distribution Ratio	0.66		0.70		0.65	
Gini Coefficient	25.8		24.6		26.5	

Source: World Bank staff estimates from 1992 Individual Budget of Households Survey, NSI.

in the definition of income employed by the NSI survey. We assessed, therefore, the effect that such an inclusion might have on income levels and income distribution data. We made a number of adjustments to income as defined by the survey. Savings withdrawals are excluded as they do not belong to current income. In 1992, they accounted for about 9 percent of total household income as defined by the NSI. Theoretically, one should include imputed income which represents income that would be received if an asset were rented - rather than sold - in the marketplace instead of being used by the owner, although in practice, this is extremely difficult. In general, income is not easily observable and measurable, especially during periods of radical changes in the structure of remuneration and

taxes, inflation, and rapid changes in the structure of the economy (such as the public/private mix, growing informalization of the economy, reliance on self-employment and so on).

Although the survey measures income generated from sales of property rather than the imputed income, this source is negligible accounting for less than one percent of household income (see Table 2).

Altering the definition of income only leads to a change in the level of household income per capita. However, none of the above mentioned adjustment significantly affects the decile shares or income inequality as both adjustments shows a very small change in the shares of all income groups. This result indicates that asset sales or drawdowns were, in general, evenly distributed across the population and not highly concentrated in any income group.

III. Income Distribution Comparisons

For a lower middle-income country, Bulgaria has very low income inequality (see Table 5a). This is an important characteristic of all economies in transition. On the basis of the share of income accruing to the bottom 40 percent of the income spectrum, for instance, Bulgaria's share was estimated in 1992 to be 23.7 percent compared to an average of 14.3 percent for 12 other lower-middle income countries; Bulgaria's income distribution is less concentrated than OECD countries--the Gini coefficient for OECD countries was estimated at 34 percent (see Ginneken and Park 1984) compared to 26 percent for Bulgaria.

Furthermore, the income share of the bottom 40 percent households in Bulgaria exceeds the OECD average share by nearly 30 percent (see Table 5a). Among the Eastern European countries, Bulgaria's income distribution is slightly more equal than in Poland and Hungary, even though the data for Poland and Hungary are for 1989--prior to the dramatic economic changes of the past several years. Recent data on income concentration (Gini coefficient) in some Eastern European Countries are shown on Table 5b. Bulgaria's income distribution is less concentrated than both Poland and Hungary but slightly more concentrated than Romania.

It had been widely anticipated that the transition from a command economy to a market economy would result in a worsening of income distribution. Comparing Bulgaria's Gini coefficient and income distribution by decile in 1992 with estimates available from earlier years does not support predictions that income inequality would worsen quickly. Furthermore, income is considerably less concentrated in Bulgaria than other lower-middle income countries, providing a relatively egalitarian base for future income growth.

Table 5a: Comparing Income Distribution in Bulgaria and other Selected Economies

Economy	Lowest 20%	Second Quintile	Third Quin.	Fourth Quin.	Highest 20%	Highest 10%
Bulgaria ^a , 1992	9.8	13.9	17.6	22.7	36.1	21.8
Eastern Europe:						
Hungary, 1989	10.9	14.8	18.0	22.0	34.4	20.8
Poland, 1989	9.2	13.8	17.9	23.0	36.1	21.6
Average	8.5	13.1	17.4	22.9	38.2	23.3
Lower-middle income economies (LMIEs) Average ^b						
	5.1	9.2	13.8	20.8	51.1	35.3
OECD Average ^c						
	6.3	12.2	17.6	24.1	39.7	24.0
Memo Items:						
Bulgaria/E. Europe Average (%)	115	106	101	99	95	94
Bulgaria/LMIEs Average (%)	192	151	128	109	71	62
Bulgaria/OECD Average (%)	156	114	100	94	91	91

Source:

^a World Bank staff estimates based on "1992 Individual Budgets of Households".

^b The average for lower-middle income economies is calculated from "Table 30 Income Distribution and PPC estimates of GDP", World Development Report, 1993, Oxford University Press, Washington D.C., pp. 296-297. This group includes the following 12 countries: Cote d'Ivoire, Philippines, Morocco, Peru, Colombia, Jamaica, Tunisia, Thailand, Costa Rica, Panama, Chile, and Malaysia.

^c Similarly, the average for OECD economies is calculated from "Table 30 Income Distribution and PPC estimates of GDP", World Development Report, 1993, Oxford University Press, Washington D.C., p. 297. This group includes the following 17 countries and the year for the income distribution estimate: Australia, 1985; Belgium, 1979; Canada, 1985; Denmark, 1981; Finland, 1981; France, 1979; Germany, 1984; Italy, 1986; Japan, 1979; Netherlands, 1983; New Zealand, 1982; Norway, 1979; Spain, 1981; Sweden, 1981; Switzerland, 1982; United Kingdom, 1979; and United States, 1985.

Table 5b: Gini Coefficient Estimates: Bulgaria and Eastern Europe

Country	Year	Gini coefficient (%)
Bulgaria	1992	25.8
Hungary ^a	1993	27.9
Poland ^a	1993	32.4
Romania ^b	1992	25.0

Source:

^a World Bank staff estimate (Policy Research Department).

^b Provisional estimate provided by Mansoor Rashid (1994), "Household Welfare in a Transition Economy: Growth, Equity, and Poverty in Romania, 1989-1992", World Bank memo.

IV. Characteristics of Households by Income Groups

Classifying households by socio-economic characteristics can provide important insights into why households are in poverty. It also provides important information for targeting social benefits more effectively. This section classifies household characteristics by income decile and discusses the most important features of low-income households.

Defining the bottom 20 percent of households as the "poor", several characteristics are immediately evident (see Table 6). They are older--head of households

average 58 years compared to 55 for the entire sample; nearly two-thirds are economically inactive, mostly retired; and, they are poorly educated, as half of them have no more than a primary education. They are also more likely to be headed by a female; nearly one-third are female-headed households compared to a sample average of 20 percent.

The head of the household is more likely to be unemployed--seven percent of heads of poor households are unemployed compared to a sample average of only 2.7 percent. Using the Bulgarian definitions of the labor force and the unemployment rate, the head of households' unemployment rate averages 6 percent in the sample. This is considerably lower than the economywide, reported unemployment rate of about 15 percent in 1992. This lends some support to the hypothesis that unemployment is overestimated in Bulgaria, because of incentives to register in order to prevent other household members from being involuntarily laid-off.

Household size is not a correlate of poverty. This is an important characteristic in which Bulgaria differs from developing countries. Poor households average 3 members, exactly the same size as all sample households. In fact, middle income households (4th to 8th decile) actually have larger household size with more children than low-income households.

Table 6: Socio-economic Characteristics of Bulgarian Households, 1992

Characteristics	Decile 1	Decile 2	Decile 3	Decile 4	Decile 5	Decile 6	Decile 7	Decile 8	Decile 9	Decile 10	National	Lowest 20%
I. Household Size (persons)	3.3	2.7	3.0	3.2	3.3	3.2	3.1	3.2	2.8	2.3	3	3.0
Distribution of size												
1. Average number of children	1.0	0.7	0.9	1.0	1.0	1.0	0.9	0.8	0.7	0.4	0.8	0.9
2. Average Number of spouse	0.7	0.6	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7
3. Others (parents, relatives, etc)	0.6	0.4	0.3	0.4	0.5	0.4	0.4	0.6	0.3	0.1	0.4	0.4
II. Sex of head of household (%)												
Male	71	67	81	81	81	85	81	86	86	84	80	69
Female	29	33	19	19	19	15	19	14	14	16	20	31
III. Age of head of household (years)	55.7	59.6	56.3	57.3	52.2	53.3	53.4	54.5	54.6	55.3	54.8	57.6
Distribution of age												
under 30 years	2.7	1.8	2.7	3.2	3.2	2.7	2.7	0.5	3.2	0.5	2.3	2.3
30 - 39	14.9	10.5	10.9	18.6	19.4	12.3	11.4	14.5	10.0	6.8	13	12.7
40 - 49	18.6	15.4	21.9	19.1	21.7	22.7	25.0	18.6	22.7	19.1	20.4	17.0
50 - 59	19.5	12.3	16.3	22.7	24.0	28.7	26.4	31.4	25.0	40.9	24.7	15.8
60 - 64	12.6	15.5	13.7	10.9	10.0	14.1	14.0	10.0	14.6	11.3	12.6	14.1
65 +	31.7	44.5	34.5	25.5	21.7	19.5	20.5	25.0	24.5	21.4	27.0	38.1
IV. Education of head of household (%)												
No education	14.0	15.9	11.8	11.4	12.2	6.4	11.8	15.9	10.0	10.0	11.9	15.0
Primary level	35.3	31.8	33.2	37.7	29.4	42.3	38.6	36.8	44.1	50.5	37.5	33.6
Secondary level	39.4	43.6	38.2	42.3	47.5	35.9	32.3	35.5	30.9	27.7	37.3	41.5
Semi high and high level	11.3	8.6	16.8	13.6	10.9	15.5	17.3	11.8	15.0	11.8	13.3	10.0
V. Economic activity of head of household (%)												
Economically active	29.4	24.1	41.4	44.5	54.3	50.9	55.9	56.4	56.8	55.5	46.9	26.8
Unemployed	10.9	3.2	2.2	4.1	0.9	0.9	0.0	1.4	0.9	2.7	2.7	7.0
Economically inactive (pensioners, etc)	57.0	69.5	55.5	50.5	42.5	47.7	43.6	41.8	40.9	41.4	49	63.3
Others	2.8	3.2	0.9	0.9	2.3	0.5	0.5	0.5	1.4	0.5	1.3	2.9
VI. Profession of head of household (%)												
Legislatives, high level officials	1.3	0.0	5.0	3.8	3.9	4.3	4.8	6.1	5.2	7.9	4.6	0.7
Experts	9.0	10.9	15.0	19.1	11.9	14.4	18.1	13.0	18.5	12.7	14.6	9.8
Technicians	10.2	6.3	9.0	5.7	11.2	11.8	8.6	9.91	9.6	6.4	9	8.5
Office workers	6.4	1.5	6.0	0.9	3.1	0.9	5.6	5.3	6.7	1.6	3.9	4.2
Maintenance staff in trade	10.3	4.7	15.0	12.4	10.3	8.5	4.7	5.3	3.0	6.3	8.1	7.7
Skilled Labor (agriculture)	1.3	4.7	3.0	1.9	2.4	1.7	3.1	7.7	2.2	7.2	3.1	2.9
Skilled labor (industry)	19.2	21.9	19.0	24.8	28.6	27.1	22.9	3.0	25.9	19.0	23.5	20.4
Operators of machines and lines	18.0	29.7	12.0	17.1	16.7	18.6	18.9	23.7	14.1	25.4	18.5	23.2
Unskilled labor	17.9	6.2	10.0	8.6	7.9	8.5	10.2	18.3	7.4	12.7	9.6	12.7
Others	6.4	14.1	6.0	5.7	4.0	4.2	3.1	4.6	7.4	0.8	5.1	9.9

Source: World Bank staff estimates from 1992 Individual Budget of Households, NSI, based on monthly data for June, 1992.

Our analysis indicates that the share of female-headed households is significantly higher among low-income households compared to the national average--they constitute 31 percent of the lowest quintile compared to 20 percent of all households (see Table 7). Moreover, there are important differences in the characteristics of low-income households between female-headed households and male-headed households. Female-headed households are smaller, older and more economically inactive, primarily they are pensioners. In contrast, male-headed households are larger than female-headed households and the average Bulgarian household--similar to other developing countries. Unemployment and low-wage employment seem to be more important determining factors in the income status of male-headed households. These characteristics have important implications for designing the social safety net in Bulgaria.

The sources of income of low-income households mirror the characteristics discussed above (see Table 8). Lower income groups depend for more than half of their income on social insurance benefits, particularly pensions. As household income increases, the proportion of wages and salaries rise, as do self-employment earnings. Interestingly, in-kind income also rises with household income, constituting about 30 percent of income for the average household, but only 16 percent for low income households. The characteristics of low income households and their sources of income illustrate the importance of the social safety net in helping the most vulnerable members of society during the transition. This is the topic of the next section.

Table 7: Characteristics of Low Income Households--By Gender of the Head of the Household

	Low Income Households ^{a/}		
	National Average	Male-Headed	Female-Headed
Proportion (% of total)	100.0	69.0	31.0
Household Size (ave.)	3.0	3.5	1.9
(o/w children)	0.8	1.0	0.5
(o/w spouses)	0.8	1.0	0.1
(o/w other)	0.4	0.5	0.3
Average Age of Household Head	57.6	53.6	62.4
Age distribution of Household Head (%):			
Below 40	15.0	17.3	10.3
40 - 49 years	17.0	19.8	9.2
50 - 59 years	15.8	15.0	19.6
60 and over	51.2	47.9	60.9
Economic Activity of Household Head:			
Economically Active	26.8	30.6	20.7
Unemployed	7.0	8.2	3.4
Economically Inactive	63.3	57.8	75.9
o/w pensioners	(62.8)	(57.2)	(75.9)
Others	2.9	3.4	0.0

^{a/} Lowest quintile of the population.

Source: World Bank staff estimates from 1992 Individual Budget of Households, NSI.

V. Who Benefits from the Social Safety Net?

Bulgaria began the transition in 1989 with a well developed pension and short-term benefit system, very little social assistance and no unemployment benefits. Since 1989,

Table 8: Sources of Income for Low Income Households (% of Total)

Sources of Income	National Average	Low Income ^{a/}		
		Average	Male-Headed	Female-Headed
Earned Income	42.2	28.3	31.5	20.4
Social Insurance ^{b/} (o/w Pensions)	23.9 (20.8)	53.8 (47.7)	49.9 (43.1)	63.6 (58.9)
Social Benefits ^{c/}	0.3	0.6	0.6	0.7
In-kind Income ^{d/}	29.7	16.2	16.8	14.8
Other Sources	3.9	1.0	1.2	0.5

^{a/} Defined as lowest quintile.

^{b/} Includes unemployment compensation, pensions, children's allowances, etc.

^{c/} Includes family benefits, disabilities and illness benefits, scholarship, etc.

^{d/} Includes insurance, gifts, lottery and home-made goods.

Source: World Bank staff estimates from 1992 Individual Budget of Households, NSI.

an unemployment benefit system has been created and social assistance programs were reformed and upgraded. The number of people regularly receiving social assistance stagnated between 1989 and 1990, and then jumped 30 times higher between 1990 and 1992 (UNICEF, 1993, p.11); in parallel with the large drop in GDP and household incomes by almost 30 percent^{6/}.

Policymakers face a dilemma. The social safety net is a crucial source of income for low income households. Yet, expenditures on the social safety net are rising and threatening macroeconomic stability. Expenditures on social insurance and benefits reached

^{6/} The 1992 census indicates a total population of 8,487,317, of whom 2,495,000 were pensioners, 759,420 were children below the age of 6, 1,392,975 were students, and 100,000 were military personnel (estimate), leaving a potential labor force of 3,739,922.

over 13 percent of GDP in 1992. The receipts from taxes that are earmarked to finance these programs did not increase as their share of GDP only held constant. Therefore, the growing gap between earmarked revenues and expenditures has necessitated a major increase in financing from general revenues, from 3.4 percent in 1990 to 15.8 percent in 1992 (see Table 9). Despite rising outlays, the cash benefit system is widely considered to be both ineffective and unaffordable. Reform is essential. A key step in reform is to understand who currently benefits from cash benefits.

The main components of the social safety are:

- Pensions. The main form of pension is for retirement. The normal retirement age is 55 for women and 60 for men. Generous provisions for early retirement have also been established which allow retirement for workers in "special categories" six years earlier than normal. Early retirement provisions cover about 30 percent of all state employees.
- Unemployment benefits. In 1989, a specialized fund was established to provide unemployment compensation, labor market information and training to the unemployed. Benefits are 60 percent of average earnings over the last six months, with benefits ranging between 90 percent and 140 percent of the minimum wage. Eligibility for unemployment compensation ranges from six

Table 9: Expenditures and Financing of Social Benefits in Bulgaria, 1990-1992

	<u>Value (Leva million)</u>		<u>% of Total</u>		<u>% of GDP</u>	
	1990	1992	1990	1992	1990	1992
<u>Expenditures</u>	<u>5188.5</u>	<u>29752.4</u>	<u>100.0</u>	<u>100.0</u>	<u>11.4</u>	<u>13.3</u>
Benefits	5064.1	28103.0	97.6	94.5	11.2	12.6
Pensions	3562.2	18791.1	68.7	63.2	7.8	8.4
Short term sick	268.9	1533.0	5.2	5.2	0.6	0.7
Maternity	423.6	1784.5	8.2	6.0	0.9	0.8
Unemployment	0.0	1284.0	0.0	4.3	0.0	0.6
Child allowances	741.4	3809.4	14.3	12.8	1.6	1.7
Social assistance	68.0	901.0	1.3	3.0	0.1	0.4
Other expenditures	<u>124.4</u>	<u>1649.4</u>	2.4	5.5	0.3	0.7
Retraining	0.0	42.5	0.0	0.1	0.0	0.0
Social care	123.6	882.0	2.4	3.0	0.3	0.4
Other SSF /1	0.8	49.9	0.0	0.2	0.0	0.0
Other URF/2	0.0	675.0	0.0	2.3	0.0	0.3
<u>Financing</u>						
Tax receipts	<u>5012.3</u>	<u>24820.8</u>	<u>96.8</u>	<u>86.2</u>	<u>11.0</u>	<u>11.1</u>
SSF	5003.9	22020.0	96.6	76.4	11.0	9.8
URF	8.4	2800.0	0.2	9.8	0.0	1.2
URF reserves	8.4	947.6	0.2	3.3	0.0	0.4
<u>Net budget/3</u>	167.8	3984.0	3.2	13.8	0.4	1.7

/1 Social Security Fund (SSF)

/2 Unemployment and Retraining Fund (URF)

/3 Net budget financing is equal to expenditures less tax receipts, less beginning of year surplus URF.

Source: World Bank (1994, Table 5.1, page 107).

to 12 months.

- Maternity, child and social assistance (family) benefits. A maternity benefit is payable for two years and leave without pay is allowed for a third year. Birth grants and child benefits are also paid. Child allowance are payable for each child, rising per child until the fourth child (to encourage an increased birth

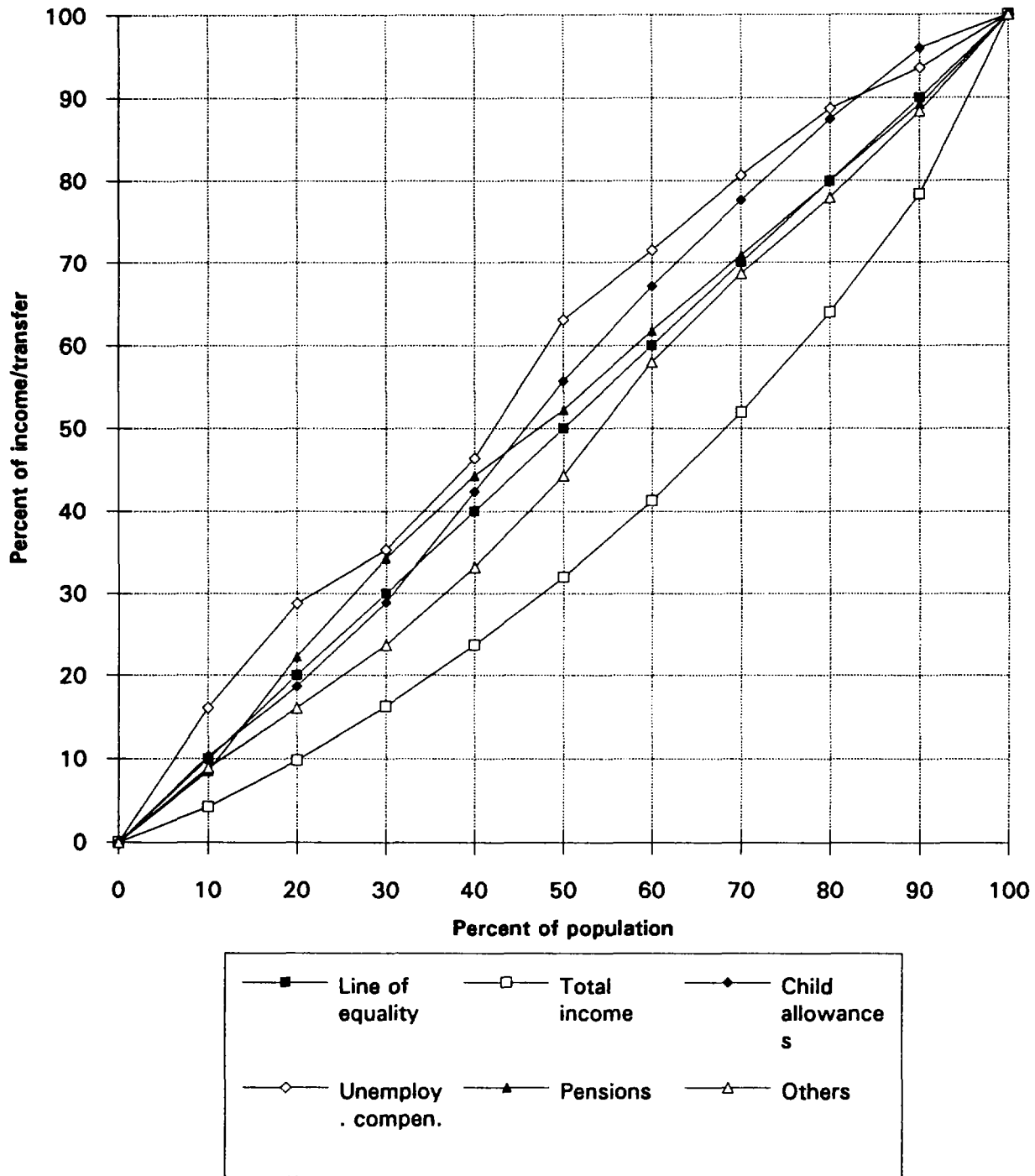
rate).

In assessing how social benefits are targeted towards the poor, we look at two questions. First, we examine whether the poor receive a larger share of social transfers (in particular, pensions, child allowances, unemployment compensation, and other social payments) than their share of national income. In such a case, the targeting of programs is judged to be **weakly pro-poor**. A second interesting question is whether the poor receive a larger share of these benefits than their share of the population. In other words is the targeting of programs **strongly pro-poor**?

Figure 2 plots the Lorenz curves for the main social benefits, as well as for household income per capita. According to this analysis, all of the main social benefits can be judged to be, at least, weakly pro-poor. Thus, on average, these benefits improve income distribution for low-income households. Moreover, unemployment compensation and pensions are strongly pro-poor for low-income households.

While social benefits are largely pro-poor, further analysis indicates that these benefits are not well targeted (see Table 10). For all of the major social benefits, middle-income households receive more than half of all benefits. For child allowances, nearly 70 percent of the benefits accrue to middle-income households, reflecting the demographics of Bulgarian households discussed earlier. Furthermore, high-income households (the upper quintile of households) receive a significant proportion of all social benefits. This illustrates

Figure 2: Distribution of income and social payments, 1992



that there remains substantial scope for improving the distribution of social benefits.

Table 10: Distribution of Main Social Benefits, 1992 (%)

	Low Income	Middle Income	High Income
Population	20.0	60.0	20.0
Income	9.7	54.2	36.1
Distribution of Social Benefits:			
Pensions	22.2	57.6	20.2
Unemployment	28.8	59.2	12.0
Children's Allowances	18.8	68.5	12.7
Social Assistance	33.4	56.6	10.0

Source: World Bank staff estimates from 1992 Individual Budgets of Households, NSI.

Pensions are virtually evenly distributed across all income deciles (see Table 10). Low-income households receive a slightly higher share (22 percent) than their population share; high-income households also receive 20 percent of total pensions. That is, the rich as well as the poor benefit equally from the current pension scheme. This is not surprising as all workers (virtually everyone worked) are entitled to a pension. The dilemma for the poor is that they are almost totally dependent on pensions for their livelihood. Furthermore, Bulgaria's aging population, the surge of retirements during the transition, and the recent generous provisions for early retirement have pushed the number of pensioners up

to nearly 2.5 million or 29 percent of the population in 1992⁷. This led to a rapid increase in expenditure on pensions, reaching 8.4 percent of GDP in 1992. However, the rapid increase in the number of pensioners coupled with Bulgaria's fiscal situation has led to a serious erosion in the real value of a pension. The erosion in the real pension has hurt those who are forced to depend almost entirely on pensions for their livelihood. This has particularly adversely affected women.

Child benefits, one of the primary purposes of which is to protect vulnerable children, is particularly poorly targeted. Less than 20 percent of child benefits accrue to low-income households. This, again, reflects the older age of low-income households and the lack of a correlation between household size and income status. As middle to higher income households actually have more children than lower income households, public spending on child allowances favors the well-off. Thus, child benefits are not an efficient mechanism for protecting children at risk.

The targeting of unemployment compensation is judged to be strongly pro-poor. The poor (the bottom 20 percent of households) receive nearly 30 percent of total unemployment benefits, i.e., a share that exceeds their population share by 50 percent. However, as with the other social benefits, a substantial portion of unemployment benefits accrue to middle- and high-income households.

^{7/} The 1992 Pension Reform Act reduces the retirement age from 64 to 60 years for men. Similarly, the retirement age for women is reduced from 58 to 55 years.

Surprisingly, social assistance (family benefits), which is designed solely to reach low-income households, is also poorly targeted. While one-third of this benefit does reach the poorest households, the other two-thirds goes to better-off households.

These results also hold for urban and rural sectors. That is, there is no significant difference between the three sectors: national, urban and rural.⁸

VI. Conclusions and Policy Implications

Bulgarian households have been dramatically affected by the economic and political transition that has taken place since 1989. Incomes have fallen significantly. Income insecurity has increased. The employment guarantee is gone, replaced by a social safety net that is insufficient and to some extent, spent on those whose need is not the greatest. Moreover, incomes provided by the state for the aged and the infirm that in the past was sufficient to guarantee a comfortable existence are no longer sufficient.

Since the onset of the transition, there have been important structural shifts in the composition of income. Wage income has fallen significantly as a share of total income. Self-employment income, resulting from the tremendous expansion of private sector activity in small retail and trade activities, is now a very important component of total income. In-kind income has also grown in importance. Unlike developing countries in general, in-kind

^{8/} As there is no significant difference between income/benefit distribution at the national, rural, and urban level, tables for urban and rural distribution of income and social benefits are not reported here

income is positively correlated with total income. It has, therefore, become an important coping mechanism and is probably the primary factor behind the higher incomes in rural areas compared to urban areas. The importance of in-kind income, however, is likely to be a major complicating factor in targeting social benefits. Finally, there is little evidence at Bulgaria's stage of the transition that income distribution has deteriorated significantly.

Policy makers face a difficult task: providing adequate social protection in the midst of a fiscal crisis with very limited information and few instruments. Based on an analysis of the only available household income and budget survey, this paper attempts to identify some important characteristics of low income households that can be used to target more effectively social protection. Three characteristics are potentially of interest:

- Low income households are older and more poorly educated than the average household, thus making them less able to adapt rapidly or ever to the changed circumstances;
- Household size is not a correlate of poverty. In fact, middle-income households have more children. Thus, benefits for children, which are a mechanism to protect vulnerable children in most developing countries where poor households are larger, accrue to better-off households in Bulgaria; and,
- The characteristics of low-income female-headed households are very different

from those of low-income male-headed households. Many poor women live in single-member households and are retired; their only protection is likely to be adequate pension income.

This paper also validates prevailing beliefs that the social safety net is not-well targeted in Bulgaria. While most social benefits are pro-poor, in the sense that they improve income distribution, a significant amount of these benefits accrue to the well-off. The results of our analysis suggest several thrusts for a needed comprehensive reform of the structure of benefits:

- Pension benefits are an important source of income for low-income, older households whose ability to cope with the transition is extremely limited. Reform should focus on enhancing pension benefits for those above 65 and ensuring that their enhanced pension benefits are adequately indexed;
- Reform of unemployment benefits is also indicated. More research needs to be undertaken on who receives these benefits, but this analysis indicates some tightening of eligibility requirements may be warranted;
- Child allowances should be means tested and limited to households below some income threshold--the threshold probably should be no higher than the bottom half of the income distribution; and,

- Means testing for social assistance also needs drastic improvement. Too much of these benefits currently accrue to middle and high income groups.

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Household Distribution of Income Per Capita by Sources of Income and Income Decile (%), 1992

Income Decile	1	2	3	4	5	6	7	8	9	10
Total Income	4.15	5.57	6.48	7.37	8.32	9.30	10.57	12.12	14.34	21.79
Primary Wages&Salaries	2.59	3.23	5.67	7.34	10.08	10.24	11.90	13.30	16.45	19.20
Secondary Wages	7.53	5.62	5.46	5.93	5.17	10.30	7.34	8.27	19.20	24.67
Other Income besides salary	6.22	7.98	7.68	7.98	9.68	8.89	9.22	10.05	11.09	21.11
Self-employment	4.84	5.05	5.88	4.61	5.79	6.92	21.70	14.99	12.53	17.53
Total (Earned Income)	2.93	3.58	5.78	7.23	9.81	10.02	12.19	13.17	16.01	19.27
Rents	3.07	2.50	8.05	5.55	13.06	14.43	25.25	7.77	8.60	9.99
Interest	0.0	5.00	9.99	14.99	0.00	5.00	5.00	29.97	0.00	9.99
Dividends	2.51	5.00	24.98	5.00	27.60	0.00	14.99	9.99	7.49	5.00
Total (Property Income)	2.94	2.92	9.99	6.09	14.44	13.16	23.88	9.26	8.29	9.75
Unemployment Compensation	16.14	12.69	6.48	11.07	16.68	8.37	9.05	8.10	4.86	7.16
Pensions	8.51	13.77	12.00	10.02	7.92	9.60	9.07	8.96	9.30	10.85
Child Allowance	10.34	8.43	10.19	13.51	13.30	11.35	10.50	9.75	8.64	4.06
Compen. for incapacity to work	4.07	5.19	4.93	8.09	6.73	16.44	12.77	7.71	13.78	19.73
Compen. for Preg. &maternity leave	12.61	9.32	9.45	9.18	15.60	13.10	6.62	12.56	8.51	2.84
Total (Income from Social Insurance)	8.77	13.11	11.58	10.24	8.59	9.91	9.20	9.04	9.25	10.30
Family Benefits	26.76	6.66	3.33	16.65	6.69	6.66	13.32	0.00	6.66	3.33
Disabilities & Illness	9.12	5.45	6.36	12.72	21.90	7.27	6.36	2.72	3.63	19.07
Others	9.48	6.66	5.00	4.44	6.69	9.44	19.43	9.44	11.10	16.65
Scholarship	10.04	8.33	13.32	15.82	10.04	12.90	10.82	7.08	8.33	4.16
Total (Social Benefits)	10.77	7.27	8.90	11.81	11.13	10.54	13.08	6.72	8.36	11.26
Sales of farm produce	1.13	1.31	0.80	2.78	2.65	4.99	8.19	12.83	16.08	49.28
Sales of other products	2.79	1.11	5.55	3.89	7.25	7.22	3.89	18.87	6.66	42.74
Sales of Property	1.13	0.20	2.65	5.10	4.10	7.24	3.87	12.13	10.40	53.52
Total (Income from Sales)	1.18	1.14	1.24	3.19	3.02	5.42	7.37	12.90	14.88	49.79
Insurance	1.61	0.80	2.00	5.20	13.65	9.99	10.39	4.00	25.98	27.18
Gifts	7.22	5.43	7.85	9.33	10.88	7.41	9.65	12.87	13.07	16.33
Lottery	3.35	6.66	9.99	9.99	10.04	19.98	16.65	16.65	9.99	9.99
Home-made goods	4.46	5.55	4.44	4.44	2.23	9.99	13.32	12.21	19.98	21.09
Others	6.69	0.83	7.22	3.05	14.78	11.10	16.93	9.16	8.33	23.31
In-kind income	1.95	2.63	3.55	5.39	6.01	8.26	9.54	13.19	16.42	33.06
Total (Other Sources of Income)	2.45	2.86	3.95	6.72	6.53	8.22	9.61	13.08	16.11	31.44

Source: World Bank staff estimates based on 1992 Individuals Budget of households, NSI.

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