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Cash Social Transfers, Direct Taxes, and Income Distribution in Late Socialism

Branko Milanovic

The formerly socialist countries of Central and Eastern Europe are ill-prepared to identify the needy and deliver social services to them. The question is, toward which world of welfare capitalism are Eastern European countries likely to evolve?

Milanovic analyzes the impact of direct taxes and cash social transfers on income distribution in Bulgaria, Czechoslovakia, Hungary, Poland, and Yugoslavia in the years before the collapse of communism. He contrasts the results for socialist and market economies.

Cash social transfers accounted for about a fifth of gross income, a proportion comparable with that in developed welfare economies. Generally, cash transfers were unrelated to income in socialist countries, in marked contrast with market economies, where such transfers go mainly to low-income households.

Direct taxes played almost no role in income redistribution. They were small — 1 to 2 percent of gross income, except in Hungary — and proportional to income. Most taxes were paid by enterprises, as payroll taxes, and most workers were unaware of the taxation and that public spending could not permanently exceed public revenues from taxation.

In socialist countries, social support was built into the system through full employment guarantees, state-run pension schemes, and free public education and health care. The only explicit policy toward poverty involved alcoholics, handicapped people, and other special categories.

This system is being replaced by a market system in which the labor market is key and those who cannot earn enough must be supported by the state. To counteract increasing income disparities, social transfers must be focused more on the poor. Eastern European states are ill-prepared for this role. They have no experience in identifying the needy and targeting support to them. The question is, toward which world of welfare capitalism are the formerly socialist countries likely to evolve?

Milanovic contends that the Central European countries will probable evolve toward the corporatist model of continental Europe. Capitalist countries in Europe tend to have large social transfers that are often related to previous earnings, so they have relatively limited roles in income redistribution. Transfers are closer to social insurance than to social assistance.

The evolution of more agricultural Balkan countries and the Slavic republics of the former Soviet Union is more difficult to predict. Poorer and more agriculture-based countries are generally less able to administer welfare schemes, gauge individual incomes, and deliver social support — and their finances may be even more strained than those of their Central European counterparts.

CASH SOCIAL TRANSFERS, DIRECT TAXES AND INCOME DISTRIBUTION IN LATE SOCIALISM

by
Branko Milanovic

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Introduction

This paper analyzes the impact of cash social transfers and direct taxes on the size income distribution in Czechoslovakia, Hungary, Poland, Yugoslavia and Bulgaria at the end of the Communist period. It contrasts the results for socialist economies with those for market economies.

The essential characteristics of income distribution in socialism are relatively well-known. Despite a different perception, shared by most economists, the data for East European countries, comparable in quality to those in market economies, have been available to researchers regularly for at least twenty to twenty-five years, and have been used in a fair number of publications.[1] In Yugoslavia, household surveys were available since 1963 at five-year intervals and after 1984 annually. Detailed annual household surveys were conducted in Poland since 1978 and published since

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[1] The perception that socialist countries tried to "hide" income distribution data is due to three factors. The first is refusals to publish the data or intentional attempts at obfuscation by the Communist authorities. This however was limited to a few countries. Most notorious were the Soviet Union and Romania. The second factor is errors of interpretation or ignorance of the existing sources displayed by Western researchers. Examples include Lydall's (1984, p. 195) complaint in an otherwise very thorough discussion of income inequality in Yugoslavia that "(w)hat is needed for a study of...income inequality is a distribution of households or persons ranked by per capita income". He was apparently unaware that these data are published and are readily available. Morrisson (1984) in his often quoted comparative study of income distribution in capitalist and socialist countries is even unaware of the existence of income surveys in Yugoslavia and Bulgaria; instead he uses some dubious extrapolations. The third factor was that East European students of income distribution were few as their topic itself was regarded by the authorities as rather suspect. Despite that ̱he area of income distribution did not go unresearched: Polish (Lulek and Paga, 1989, Okrasa, 1988, Gorecki, Topinska and Wisniewski, 1984, Flakierski, 1986), Hungarian (Adam and Nosal, 1982), Yugoslav (Flakierski, 1989, Milanovic, 1990) or comparative East European (Kende and Strmiska, 1988) income distributions were well studied and papers were available in English.

1980. In Czechoslovakia, large household surveys were conducted since 1958 at three- to five-year intervals although the results were not widely distributed. In Hungary, household budget surveys were conducted at one- or two-year intervals since 1978 and larger income surveys every five years since 1962. Even longer data series exist for the distributions of state-sector wages. In Poland and Hungary, the distributions were published practically annually since 1956, in Yugoslavia and Bulgaria since 1962-3, and in Czechoslovakia they were available at more or less bi-annual intervals since 1959.

The pattern of income distribution in socialism was recently summarized by Phelps-Brown (1988, pp. 303-4).

> "...the three Soviet-type distributions [Hungarian, Soviet and Czechoslovak]...are much more egalitarian than the Western type. The difference arises mainly from a slower rise of income above the median, that is, broadly: the more skilled manual occupations and still more the higher clerical, the professional and administrative, are paid less than in the West relatively to the bulk of manual workers. Allowance for 'perks' reduces the contrast, but is unlikely to remove it."

While the overall shape of income distribution is reasonably well understood, very little is known about some specific income distribution issues, and, in particular, the incidence of taxes and cash social transfers. The incidence analysis is not solely of historic 1 relevance. While a number of economic aspects have changed in the East, little has changed in social policy. This is understandable because such changes affect entitlements of various groups, and, particularly in conditions of decreasing income, such changes are difficult to implement. The only change of note since the end of Communism was the introduction of unemployment insurance. The current distribution of benefits and taxes will determine the direction of future changes; only if one knows with some precision who are the present net beneficiaries can an adequate new policy be designed.

In Section 1, I discuss distribution of cash social transfers. Section 2 looks at the effect of direct and payroll taxes on income distribution and the combined impact of cash transfers and taxes. Section 3 contrasts the worlds of welfare socialism and capitalism. The last section presents the conclusions and examines the likely impact of transition to capitalism on the current system of social welfare.

The study is based on household data collected by statistical offices

of the five countries in 1988 for Czechoslovakia and 1989 for the rest. Comparison among the East European countries is facilitated by similarities in the survey design (see Annex). All surveys rank individuals by their household *per capita* gross income or *per capita* disposable income for Hungary.[2] I denote such distribution as $D(p|y_p)$; the distribution of persons (p) by *per capita* household income (y_p). In Polish and Hungarian surveys, households are divided into ten decile groups; in Yugoslav and Bulgarian surveys into ten income groups, and in the Czechoslovak survey into twenty-five income groups.[3] All calculations reported below are based on grouped data. (The definition of income is broadly similar. For the details as well for some problems with the data and their reliability, the reader should consult Annex.)

In Polish surveys households are divided into four social groups, workers, farmers, mixed and pensioners households. In Yugoslav surveys, households are divided into three social groups, non-agricultural, including workers and urban pensioners, farmers, and mixed households. Czechoslovak and Hungarian surveys divide the population into workers, farmers, and pensioners. Bulgarian data to which I had access do not provide information about social groups. Throughout the paper, income includes money incomes plus consumption in kind valued, by the Statistical Offices, at market prices.

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[2]   Each individual in the household is assigned that household's per capita income.

[3]   Income groups contain variable proportions of recipients (falling between the lower and upper income bound). We use the term decile (quintile etc) group only for income groups specifically constructed as to include each 10 (20) percent of recipients.

Section 1. The Role of Cash Social Transfers

Cash social transfers included in surveys comprise the following benefits: pensions, all pension schemes are state-run; various family allowances, inclusive of maternity allowances; sickness benefits; and other social transfers, such as stipends.[4] The magnitude of social transfers, in percent of household gross income. and their concentration coefficients are shown in Table 1 (all concentration and Gini coefficients in the paper are represented as percentages, i e. multiplied by 100).[5]

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[4]   In some countries (Poland and Bulgaria) sickness benefits are paid by enterprises and thus are not shown as government (social) transfers.

[5]   The concentration coefficient C is a synthetic indicator showing the concentration of an income source x when recipients are ranked by amounts of y (say, disposable income). Graphically, when cumulative percentage of recipients (ranked according to y) are shown on the abscissa, and cumulative percentages of x are shown on the ordinate, the line that connects the two is called the concentration curve. The concentration coefficient is equal to twice the area that lies between the concentration curve and the 45° line (line of equality). The concentration curve can lie below (above) the line of equality. In the special case when $x=y$, the concentration coefficient is equal to the Gini coefficient, and the concentration curve is called the Lorenz curve. The concentration coefficient ranges from -1 when all (say) transfers are received by the poorest individual through 0 when all individuals receive the same amount of transfer income, to $+1$ when all transfers are received by the richest individual. When the concentration coefficient is 0, it coincides with the 45° line. When it lies above the line of equality it is negative; when it lies below the line of equality, it is positive.

Table 1. STRUCTURE AND DISTRIBUTION OF SOCIAL TRANSFERS
(all households)

Percent of gross income	POL 1989	YUGO 1989	CSFR 1988	HUN 1989	BULG 1989
Pensions	15.2	12.1	16.5	13.4	16.6
Family allowances	5.5		5.6	6.0	2.3
Sickness benefits			3.0	2.0	
Other social transfers	1.4	1.2	0.4	1.1	2.3
Total transfers	22.1	13.3	25.4	22.4	21.2
Concentration coefficients					
Pensions	-2.6	38.2	8.1	9.5	10.9
Family allowances	-12.3		-28.4	-21.9	-17.2
Sickness benefits			13.3	22.1	
Other social transfers	14.2	25.8	-19.5	-7.2	5.3
Total transfers	-3.9	37.1	0.3	1.4	7.2
(t-values)$^{a/}$	(-2.4)*	(7.4)**	(0.2)	(1.5)	(1.8)
Gross income b/	26.1	37.9	19.5	23.1	21.7

a/ Standard errors of concentration coefficients for all transfers are calculated using the jackknife technique suggested by Sandstrom, Wretman and Walden (1988, p.116).

b/ For Poland, CSFR, Yugoslavia and Bulgaria, gross income (after payroll taxes) but before a practically negligible personal income tax. For Hungary, disposable income.

Note: * = significant at 5 percent.
** = significant at 1 percent.

The size and distribution of social transf rs are remarkably similar in the three Central European countries and Bulgaria. Social transfers in cash account for between 21 and 25 percent of household gross income in the Central European countries and Bulgaria but for only 13 percent in Yugoslavia.[6] The share of pensions in household gross income is contained within an even narrower range: between 12 percent in Yugoslavia and 16.5 percent in Hungary and Bulgaria. Pensions account for approximately two-thirds of all cash social transfers.

In Poland, CSFR, Hungary and Bulgaria, social transfers are distributed almost equally across income groups. Concentration coefficients are very small and, with the exception of Poland, are not statistically significantly different from zero. A zero concentration coefficient indicates that transfers are independent of total income. This practically flat *per capita* distribution of social transfers is in sharp contrast to the situation in market economies where cash transfers are focused on the poorer segments of the population (Figure 1).[7] The concentration coefficients of cash transfers in market economies in our sample, see Table 2, range from -16 to -44. The negative sign of the coefficient indicates that transfers are skewed towards the poor; they are progressive.[8]

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6   Gross income is equal to original income (wages plus net self-employment income plus property income plus other income before government redistribution) plus government cash transfers. Gross income is the central income concept that I use. Wages are net of payroll taxes (see Section 2). Disposable income is equal to gross income minus direct personal taxes. Since direct personal taxes in all countries except Hungary are negligible, there is no practical difference between gross and disposable income.

7   The increase in transfers between the first and the second decile in the UK and Sweden occurs because individuals in the second and third income decile receive most of the transfers in the form of relatively higher pensions while those in the lowest decile receive them as relatively lower non-contributory benefits (welfare).

8   Progressivity compares the distribution of an income source (transfer) or a tax with the distribution of gross income. For taxes, when their share in gross income increases with increase in income, we say that

Figure 1

Cash transfers by income deciles
(country average = 1)
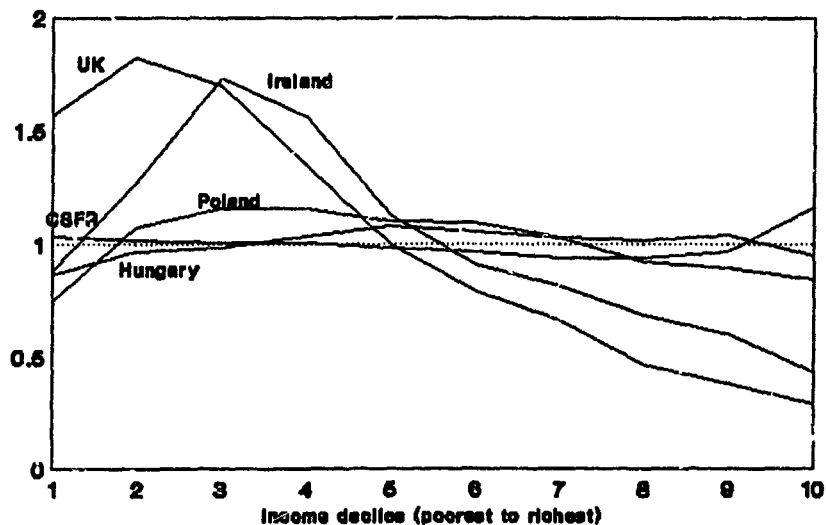
Sources: Sweden: calculated from Bishop, Formby and Thistle (1990, Table 3). United Kingdom: calculated from United Kingdom Central Statistical Office (1992, Table 4 Appendix 1, p. 142). Poland and Hungary: Calculated from household surveys.

Year and ranking criteria: Sweden, 1981, ranking according to original income. UK, 1989, households ranked according to equivalent disposable income. Hungary, 1989, individuals ranked according to household per capita disposable income. Poland, 1989 and CSFR, 1988, individuals ranked according to household per capita gross income.

taxes are progressive. Conversely, for transfers, when the share of transfers in gross income *decreases* with level of income, we say that transfers are progressive. Also, it should be noted that in general progressivity calculated when recipients are ranked by their *per capita* income will tend to be greater than if recipients are ranked by household total income (see Rule number 3 in Milanovic, 1992).

Table 2. CONCENTRATION COEFFICIENTS OF CASH SOCIAL TRANSFERS

Norway	-44.0
Germany	-35.9
Canada	-34.7
United States	-30.^
United Kingdom (89)	-30.0
Israel	-23.6
Sweden	-19.8
United Kingdom (79)	-19.7
Poland	-3.9
Czechoslovakia	0.3
Hungary	1.4
Bulgaria	7.2
Chile	32.2
Yugoslavia	37.1

Note: The concentration coefficient ranges from -1CO when all transfers are received by the poorest individual through 0 when all individuals receive the same amount, to +100 when all transfers are received by the richest individual. Consequently, more negative values of the concentration coefficient indicate greater emphasis on the poor.

For all economies the ranking of individuals or households is according to gross income; only for Hungary and the UK (1989) the ranking is according to disposable (disposable equivalent for the UK) income. Data for OECD countries, except UK 1989, are calculated from O'Higgins, Schmaus and Stephenson (1989, Table 4) and refer to the period 1979-82. UK 1989 calculated from United Kingdom Central Statistical Office (1992, Table 4 Appendix 1, p.142). Data for socialist economies are from the surveys. Data for Chile include state-mandated pensions; they are for the year 1987 and are calculated from Haindl, Budinich and Irrazaval (1989, Table 1.10-1.12, pp. 47-9). Since the data for market economies are of the form $D(H|y_H)$ while the data for socialist economies and Chile are of the form $D(p|y_p)$ transfers would appear somewhat less progressive in market economies (see Rule number 3 in Milanovic, 1992). The opposite effect is exerted by the fact that gross income in socialist economies is practically the same as disposable income (a calculated progressivity decreases as we move from original to gross to disposable income).

For comparability purposes, I have used in Table 2 only such data for market economies where recipients are ranked according to gross income. The more frequently available data, where recipients are ranked according to original income, show greater progressivity of transfers.[9] This occurs because of the violation of horizontal equity as some households with low original income and high transfers overtake households with a higher original income and lower transfers. Relatively better-off households, according to gross or disposable income, are then shown as recipients of transfers and the degree of the calculated progressivity decreases. In general, we expect progressivity to go down as we move from original to gross to disposable income.

Among East European countries, Yugoslavia is an exception because the distribution of social transfers approximates the distribution of gross income (see Table 1). This is due to the republicanization of pension and social welfare funds whereby significant differences in average pension levels, reflecting differences in wages, between richer and poorer republics were maintained.

Family allowances play a very important role in the three Central European countries. They are, after pensions, the most important cash transfer, with a share in gross income of 5 to 6 percent. This contrasts with an average share of 1-1.5 percent of gross income in West European market economies.[10] In Poland, family allowances are not paid to private farmers and the difference between private farmers and workers, in terms how much family allowances they receive, is substantial (Table 3).

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[9] See, for example, Mitchell (1991, Annex C).

[10] Calculated from O'Higgins, Schmaus and Stephenson (1989, p. 116).

Table 3. SIZE OF FAMILY ALLOWANCES
(in percentage of gross income)

	POL	CSFR	HUN	BULG
Workers	7.2	5.4	6.3	2.5
Farmers	0.5	6.4	7.4	1.2
(1) Concentration coeff. for gross income less *'ly allowances	26.7	21.1	24.4	22.1
(2) Gini coefficient for gross income a/	26.1	19.5	23.1	21.7
(2)-(1)	-0.6	-1.6	-1.3	-0.4

a/ For Poland, CSFR and Bulgaria, gross income (after payroll taxes), for Hungary, disposable income.

Family allowances are strongly pro-poor even in absolute terms. This means that poor households receive more of them not only in relative terms, i.e. in comparison to their income, but also in absolute amounts (Figure 2). Family allowances are the only income source that is both important and focused on the poor, albeit by default, because they are paid in respect of children, and there is generally a strong correlation between the number of children and the level of *per capita* income. Family allowances achieve a significant reduction in inequality, lowering the overall Gini coefficient by 0.4 points in Bulgaria, 0.6 points in Poland, 1.3 points in Hungary and 1.6 points in CSFR (Table 3). Pro-poor family allowances, combined with pensions that account for two-thirds to three-fourth of total cash transfers and display low concentration coefficients, 8 to 9 in CSFR and Hungary, 11 in Bulgaria, and -2.6 in Poland, produce the already noted almost equal *per capita* distribution of all cash transfers.

Figure 2

Family allowances by income decile
(country average = 1)

Income deciles (poorest to richest)

Workers households for Poland.
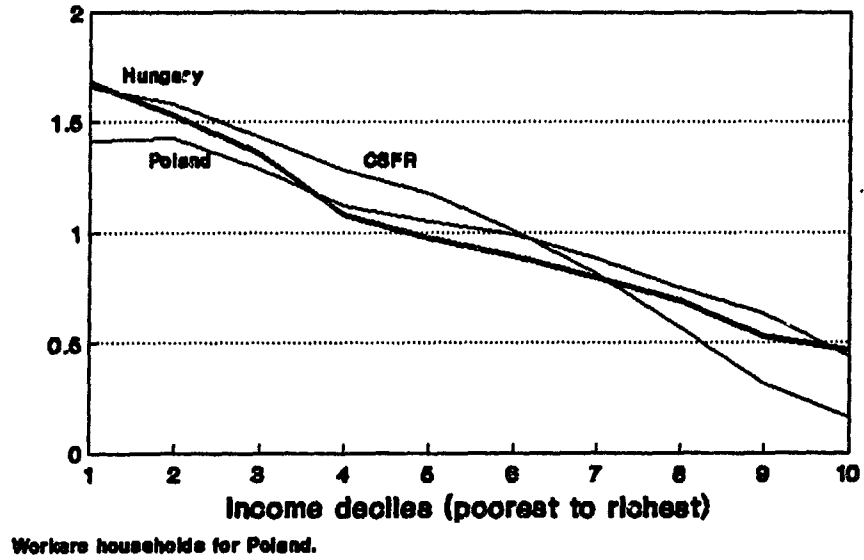
Sources: Household surveys.

Section 2. Direct Taxation and Overall Redistribution

Direct or quasi-direct taxation in socialist economies takes two forms: payroll taxes and direct personal taxes. Payroll taxes amounting to 40-50 percent of the net wage-bill are the main source of quasi-direct taxation, and they finance pay-as-you-earn systems of social security although that link in socialist economies is often weak.[11] For example, the link was either legally non-existent, as in Czechoslovakia and Bulgaria, orsocial security shortfalls were routinely financed out of the budget as in Poland and the former Yugoslavia. Heavy reliance on payroll taxation can be explained by the unwillingness of governments to depend for their revenues on profits that, in enterprises controlled by workers, can easily be "swallowed" by higher wage payments.

Payroll taxes are automatically withheld at the source and are effectively paid by enterprises. This is true even in Hungary where, following the tax reform in 1988-89, social security contributions were divided between employee- and enterprise-financed parts. At the time, wages were almost automatically raised by the amount of employee contribution. Payroll taxes are proportional to wages, although there are some departures from proportionality in Czechoslovakia and Hungary, and whether they have a redistributive role is determined by the relationship

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[11] It was pointed out by a referee that quasi-direct (payroll) taxes in socialism had little effect on demand for labor and hence on wage rates. This point must be borne in mind when comparing who bears the brunt of taxation in socialism and capitalism. In both cases I assume that direct taxes are borne by those are nominally responsible for their payment: this assumption may be more warranted for capitalist than for socialist countries.

between wages and overall income.[12] If wages are a stro..gly pro-rich sour~e of income, meaning that the share of wages in income is rising as the level of income goes up, proportional payroll taxes can have some redistributive role. It would be akin to proportional taxation of capital gains, or indirect taxation of a good whose income elasticity of consumption is greater than 1.[13] In reality, the share of wages in total income in socialist economies exhibits less variation than in the West (Figure 3). It follows an almost inverted U shape, rising for low and middle income groups and then decreasing or stagnating for the top groups. A proportional tax on wages, though substantial, 25 to 45 percent of gross income, is therefore unlikely to have but a small impact on overall inequality. In Bulgaria, Hungary and Poland, payroll tax increases income concentration by approximately 1 Gini point. In Yugoslavia and CSFR, income concentration is slightly reduced (see Table 5).

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[12] In Czechoslovakia, wage tax rebates are given in respect to dependent child but at a rate *increasing* with the wage level. The overall impact of wage taxes on inequality was thus a product of two opposing effects: the number of children which is negatively correlated with household per capita income, and the wage level which is positively correlated. See Dlouhy (1991, p. 4).

Strictly, if the concentration curve of an income source *s* lies outside the Lorenz curve, then proportional tax on *s* will shift the Lorenz curve inward. This will happen because the importance of the pro-rich source *s* in total income will decrease.

Figure 3

Non-agricultural wages as percent
of gross income
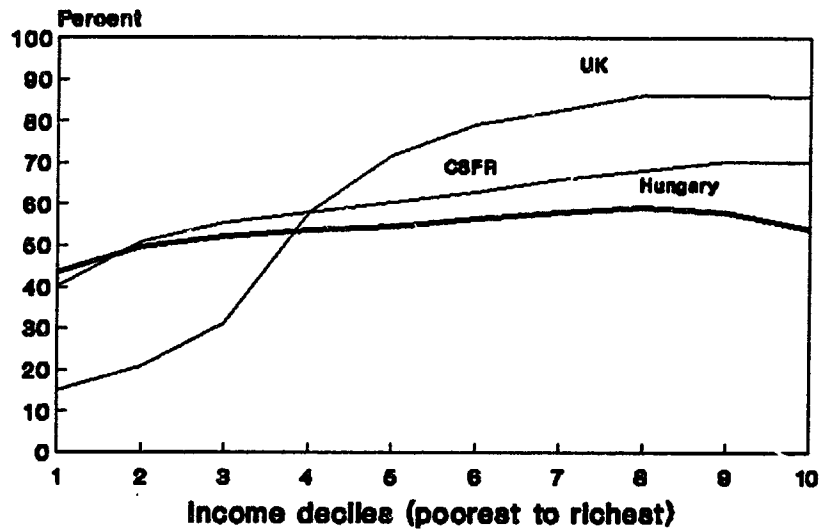
All households.

Sources: For Hungary and CSFR, household surveys. For UK, United Kingdom
Central Statistical Office (1992, Table 4 Appendix 1, p. 142).

Direct taxation of personal incomes existed only in Hungary. A personal income tax levied only on very high incomes existed in Yugoslavia, Bulgaria, and Poland, the so-called equalization tax, but its importance was negligible, barely exceeding 1 percent of households' gross income (Table 4). The redistributive role of direct taxes was therefore minimal except in Hungary where the fiscal system was reformed in line with those existing in market economies.

In comparison with direct taxes, the redistributive role of cash social transfers is much more important. The addition of cash transfers to original income reduces the concentration coefficient by between 6.5 and 8.5 Gini points in CSFR, Hungary and Poland, and about 4 points in Bulgaria (Table 5). As expected, payroll and wage taxes have practically no impact except in Hungary where direct taxes reduce income concentration by 1.7 Gini points. In Yugoslavia, social transfers and direct taxes have practically no effect on original income distribution.[14]

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14 These are only approximate effects of redistribution because departures from horizontal equity are not accounted for. For example, for Poland, CSFR and Yugoslavia, the Gini coefficient is calculated with respect to gross income (G_g). The concentration coefficient of disposable income (C_d) is less than or equal to the Gini coefficient of disposable income (G_d). Consequently, redistribution measured by C_d-G_g will be an overestimate of G_d-G_g. The redistributive impact of social transfers, however, is *underestimated* because it is measured by C_o-G_g rather than, as it ideally should be, by G_o-G_g where o=original income.

Table 4. IMPORTANCE OF DIRECT AND PAYROLL TAXES
(all households)

As percent of gross income a/	POL	YUGO	CSFR	HUN	BULG
Payroll taxes	24.6	32.0	45.7	29.4	23.7
Direct taxes	1.0	1.2		8.5	
Other taxes b/				2.2	
All taxes	25.6	33.2	45.7	40.1	23.7
Concentration coefficients c/					
Payroll taxes	30.5	40.4	28.3	27.3	20.7
Direct taxes	n.a.	42.1		41.3	
Other taxes				18.4	
All taxes	30.5	40.5	28.3	29.8	20.7
Gross income d/	26.1	37.9	19.5	23.1	21.7

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a/ Gross income does not include payroll taxes. Payroll taxes are given as percentage of gross income simply in order to show their importance.

b/ Includes fees, duties and various mandated contributions.

c/ For the definition of the concentration coefficient see Table 2.

d/ For Poland, CSFR and Bulgaria, gross income (after payroll taxes), but before a practically negligible personal income tax. For Hungary, disposable income.

Sources: In Hungary there are the employee- (10 percent of gross wage) and the enterprise-financed (43 percent of wage bill) social security contributions. The data on the employee-financed part are reported in household surveys; I impute the enterprise-financed part. In Czechoslovakia there are also two taxes on state-sector labor. Wage tax (12.4 percent of gross wage) is reported in household surveys; payroll tax paid by enterprises is 50 percent and is imputed. In Poland (43 percent of the wage bill), Yugoslavia (51.4 percent), and Bulgaria (42 percent), the whole tax is paid by enterprises and is imputed. Yugoslav taxes finance also health and education. Bulgarian tax is composed of 30 percent social security tax and an estimated 12 percent wage tax withheld at source.

Table 5. REDISTRIBUTION THROUGH SOCIAL TRANSFERS AND DIRECT TAXES
(all households)

SOCIALIST ECONOMIES

Concentration coeff.	POL	YUGO	CSFR	HUN	BULG	Average
Original income						
before payroll tax	33.5	38.7	26.9	31.0	24.5	**30.9**
Original income	34.5	38.1	26.0	31.9	25.6	**31.2**
Gross income	26.0	37.9	19.5	24.8	21.7	**26.0**
Disposable income	n.a.	37.9	n.a.	23.1	n.a.	

Changes (in Gini points) due to:

	POL	YUGO	CSFR	HUN	BULG	Average
Payroll tax	+1.0	-0.6	-0.9	+0.?	+1.1.	**+0.3**
Cash transfers	-8.5	-0.2	-6.5	-7.1	-3.9	**-5.2**
Direct taxes	n.a.	0.0	n.a.	-1.7	n.a.	

Change in concentration coefficient
per 1 percent of gross income
transferred or taxed (x100)

	POL	YUGO	CSFR	HUN	BULG	Average
Cash transfers	-40.8	-1.0	-25.7	-31.7	-18.4	**-23.3**
Direct taxes				-10.3		

MARKET ECONOMIES

Concentration coeff.	UK 1979	SWED 1981	AUSTR 1981-2	US 1979	GER 1981	Average
Original income	39.3	41.7	41.4	42.5	40.7	**41.1**
Gross income	29.3	24.1	33.6	36.9	28.0	**30.4**
Disposable income	26.4	19.7	28.7	31.7	25.2	**26.3**

Changes (in Gini points) due to:

	UK	SWED	AUSTR	US	GER	Average
Cash transfers	-10.0	-17.6	-7.8	-5.6	-12.7	**-10.7**
Direct taxes	-2.9	-4.4	-4.9	-5.2	-2.8	**-4.1**

Change in concentration coefficient
per 1 percent of gross income
transferred or taxed (x100)

	UK	SWED	AUSTR	US	GER	Average
Cash transfers	-49.0	-45.9	-79.6	-66.7	-63.5	**-60.9**
Direct taxes [a]	-17.5	-14.8	-22.6	-24.9	-11.7	**-18.3**

a/ Includes payroll taxes paid by the employees.
Definitions: Original income = original income before payroll tax +
payroll tax.
Gross income = original income + cash transfers.
Disposable income = gross income - direct taxes.
Sources: Data for market economies are derived from Mitchell (1991,
Tables C.1 and C.3 in Appendix C, pp. 221-2). For socialist economies, see
sources in Table 4.

In market economies, too, transfers are much more potent instrument of redistribution than taxes; but there are two important differences: taxes do play some redistributive role, and social transfers are more efficient, in the sense that the same amount of cash transfers, measured as percentage of gross household income, achieve a greater reduction in the concentration of income. As Table 5 shows, in market economies the concentration coefficient of gross income is about 11 Gini points less than the concentration coefficient of original income. This reduction in inequality is achieved through transfers that are less than 10 percent of gross household income in the United States and Australia, 13 percent in the United Kingdom in 1989, 20 percent in West Germany and in the United Kingdom in 1979, and 38 percent in Sweden. In socialist economies, the difference between concentration coefficients of original and gross income is, on average, 5.2 Gini points, while cash transfers are between 21 and 25 percent of gross income (except in Yugoslavia: 13.3 percent). Thus, on average, cash transfers that amount to one percent of gross income lower the concentration of income by 0.633 Gini points in market economies and by 0.233 Gini points, or 0.3 points if Yugoslavia is excluded, in socialist economies. East European countries uniformly score less on efficiency, implying that the differences are systematic.

If we compare the UK data for 1979 and 1989, an interesting conclusion regarding the effects of Thatcherism on income distribution and transfers emerges. Cash transfer's focus on the poor has improved, the efficiency per unit of transfered income has increased by half, while the size of transfers has decreased. Direct taxation, on the other hand, has become less progressive: one percent of taxed gross income reduced income concentration by 0.175 Gini points in 1979 and by only 0.069 Gini points ten years later. These results may be typical for a number of countries that in the 1980s proceeded both to streamline their welfare systems and to reduce marginal tax rates. To the extent that better targeting offsets the effect of smaller size of transfers (see the data for the United Kingdom in Table 5 where cash transfers reduce the Gini coefficient by 10 points in both 1979 and 1989), we can conclude that the observed increased inequality is due to higher inequality in original incomes and much smaller redistributive role of taxes. The corrollary is, of course, that transfers can be reduced without detrimental effect on income distribution.

The net balance between cash social transfers and direct and quasi-direct taxes in CSFR, Hungary and the United Kingdom, used here as an example for market economies, is shown in Figure 4.[15] In socialism, cash transfers are practically uniform across the population while direct and quasi-direct taxes are proportional to income. Poor households therefore receive benefits equal to their share in the population and pay taxes equal to their share in gross income or wages. The result is a gently sloped downward curve of net benefits that starts with positive benefits of 15-20 percent of gross income for the two lowest income deciles and becomes slightly negative already for the third decile. The share of net benefits in gross income of poor households/individuals is significantly greater in the United Kingdom. The gradient of the UK curve is much sharper as households in the two lowest deciles receive about one-half of their gross income in the form of net benefits while the balance is zero for the fifth decile.

Less progressive transfers and taxes in socialism are also a response to the fact that there is less to equalize because the underlying distribution of wages and of original income is generally more equal than in capitalism.

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[15] Net benefits are defined as the difference between cash social transfers (Table 1) and direct and quasi-direct taxes (Table 4). Indirect taxes and subsidies, and benefits in-kind are not included. To make the data for East European countries and the UK more comparable, employers' contributions to National Insurance in the UK are assumed to be paid by workers (as it is implicitly assumed for all of payroll taxation in Eastern Europe).

Figure 4

Net cash benefits 1/ as percent of gross income

Percent

UK

OSFR

Hun

Income deciles (poorest to richest)

1/ Cash transfers-direct and payroll tax
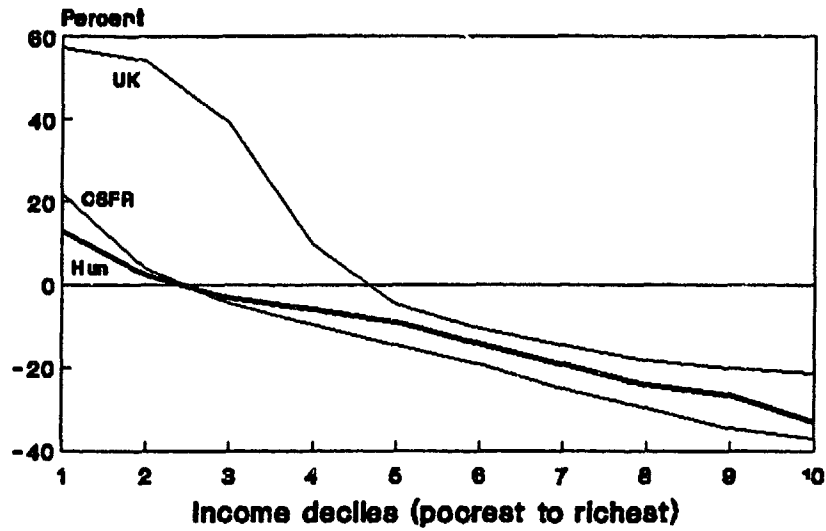
Sources: as in Figure 3.

Section 3. The World of Welfare Socialism

The socialist system of taxes and transfers displays features that are different from those found in market economies. In a recent book, Esping-Andersen (1990) defines three worlds, or arche-types, of welfare capitalism. These are the liberal world of residual social welfare where transfers are limited and generally means-tested, the conservative and corporatist world of sizable yet mostly earning-related transfers, and the socio-democratic world of big social transfers where welfare is treated as a universal right. In terms of countries, Anglo-Saxon countries, Japan and Switzerland belong to the liberal world, continental Europe to the conservative world, and Scandinavia and the Netherlands to the social-democratic world.

The socialist welfare system differs from the three capitalist worlds by virtue of an almost total absence of transfer targeting. This is due to the intrinsic features of the system. With full employment and high participation rates, the role of social transfers cannot be to compensate for lack of labor income. The poor are generally those outside the state employment and pension system: they are accidents who live at the societal margin. The Communist state, whose philosophical foundation is that everybody should work, preferably in the state sector, tends to regard the poor as unworthy of sympathy and aid. This was, in a certain way, the Calvinist work-ethic pushed to its extreme. Moreover, the system being a dictatorship, there was no need even for the enlightened self-interest that prompted the Victorian upper classes to accede to a residual welfare system in order to preempt a lower-class uprising. On the other hand, a compressed wage structure and relatively mild income differences do not call for a progressive tax system.

In terms of the size of transfers, the socialist welfare system stands between the conservative and the social-democratic system.[16]

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[16] Social transfers expressed in terms of total households' income are often greater in socialist than in market economies while the reverse is true when transfers are expressed in terms of GDP. Thus for the period of the 1980s, Rutkowska (1991) finds that cash social transfers in Poland, Hungary, Czechoslovakia, and Yugoslavia averaged about 10 percent of GDP vs. 12 percent for OECD as a whole and 15.8 for social welfare OECD countries. In terms of households income, the difference is less or is moreover in favor of socialist countries. This is due to the fact that

It could be asked if the differences in the size of transfers and targeting are due to systemic differences between socialist and capitalist economies or, for example, to differences in income levels.[17] The reason why the differences are, in my opinion, systemic is that the observed size and pattern of transfers in socialism can be directly related to some philosophical premises on which the system was based. The large size of transfers is derived from the emphasis on social consumption rather than on individual consumption. Lack of targeting derives both from the absence of large market income differences, which in other countries transfers are supposed to even out, lack of concern with the poor, as explained above, and egalitarianism implicit in emphasis on social consumption.

Figure 5 broadly accords with Esping-Andersen's classification except for the rather unique position of the Swedish system whose key characteristics are not, it seems, shared by Norway. The United States, Canada and Israel have very targeted systems. This is probably due to the relative parsimony of their systems. Britain (in the late 1970s) and Sweden have the least targeted welfare system among the market economies. The British situation had changed in the 1980s because the decrease in the size of transfers was accompanied by better targeting (see the SW movement of the UK data point). Similar change can be expected in Sweden whose welfare system is currently undergoing major reforms.

Flat transfers in socialism preserve horizontal equity. If transfers are distributed equally *per capita*, income rankings of individuals cannot be changed. This is in contrast to the hypothesis put forth by Okrasa (1988, p. 637), namely that "[r]edistribution of income through social transfers in Poland -and in the East- pays more attention to vertical equity across particular socio-economic groups than in the West, but at the same time it is less successful in meeting the objective of horizontal equity". The first part of his statement is correct but not the second.

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households receive a smaller portion of GDP in socialism than in capitalism: for example, almost none of corporate saving and investment in socialism is mediated through personal (household) income.

17   I am thankful to a referee for pointing out this problem.

Figure 5

Size of cash transfers and targeting

Concentration coeff. of transfers

Transfers as % of household gross income
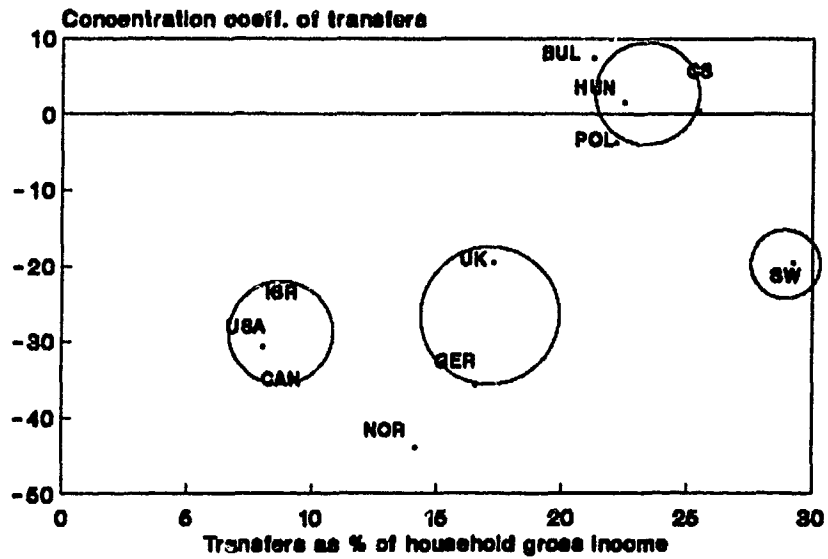
Market economies in 1979-82.
Socialist in 1968-69.

Sources: as in Table 2.

Section 4. Conclusions

Cash social transfers in socialist economies in the years immediately preceding the collapse of socialism accounted for about a fifth of population gross income, a percentage comparable with that in developed welfare economies. Transfers were generally unrelated to income levels and were paid on the basis of demographic characteristics. To the extent that some of the characteristics were correlated with income, certain transfers like family allowances played a redistributive function. Overall, however, cash transfers were unrelated to income. This is in marked contrast to the situation in market economies where transfers are focused on low-income households.

Direct taxes played almost no role in redistribution. They were both very small in the aggregate, 1 to 2 percent of gross income except in Hungary, and proportional to income. Most taxation was paid by enterprises, in the form of payroll taxes, and there was little awareness among workers that they ultimately bore the taxes and that social transfers had a limit in the amount of taxes raised. This attitude stimulated inordinate demands for state spending unrelated to the ability of the state to raise revenues.

An important issue during the transition will be the relationship between income and wage distribution, on the one hand, and cash social transfers on the other. Currently, wages and cash transfers account for about 80 percent of household gross income. The distribution of both will change. Wages, are likely to become more unequal. To counteract an increase in income disparities, social transfers must become more focused on the poor.

The relationship between increased wage disparity and better provision of social support is not novel. During the transition from feudalism to capitalism, the labor market supplanted personalized and paternalistic relationships and weakened a number of social buffers such as guilds and the family. The transition to capitalism resulted in an increase in the number of the poor because many could not command a sufficient wage in the labor market. This, in turn, necessitated that the state take the role of provider of last resort. The situation in countries in transition from socialism to capitalism is similar. In socialism, social support was built into the system through full employment guarantees, state-run pension schemes, free provision of education and

health care. An explicit state policy toward poverty was not necessary and, indeed, did not exist. Anti-poverty policy dealt only with cases of alcoholics, the handicapped, etc. Such a system is being replaced by a market system where labor market plays the key role and those who cannot earn a sufficient wage must be supported by the state.

However paradoxical it may seem at first sight, the state in Eastern Europe is ill-prepared for this task. Although the role of the state was pervasive in socialism, the state had no experience in identifying the needy and delivering support. Yet the state will have to take upon itself such a role as transition to a market system occurs. The question is then, toward which world of welfare capitalism are East European countries likely to evolve.

The most probable evolution of Central European countries is toward the corporatist model of continental Europe. Capitalist countries of continental Europe have large social transfers; because transfers are often related to previous earnings they have rather limited redistributive role and follow more closely the social insurance than the social assistance principle. Neither the size nor the main principles of transfer determination would need to be altered significantly for the Central European countries to begin to resemble their capitalist neighbors.

The evolution of the welfare systems in the more agricultural Balkan countries and in the Slavic republics of the former Soviet Union is more difficult to predict. Some elements that characterize corporatist European systems are present in these countries too. However, an important difference between Central Europe and the more agricultural former socialist countries is lower ability of the more agricultural countries to administer welfare schemes, gauge individual incomes and deliver social support. In addition, their finances may be even more strained making all universal welfare schemes nearly impossible to finance.

ANNEX - CHARACTERISTICS OF SURVEYS AND ADEQUACY OF DATA

Data sources

In our analysis we use household surveys data published by the central statistical offices of five countries. The publications used are the following. For Poland, the data are published in *Budzety Gospodarstw Domowych w 1989 Roku*, Warsaw: Central Statistical Office, 1990. In our analysis we use the unpublished decile data supplied by the Central Statistical Office. For Yugoslavia, the data come from *Anketa o potrosnji domacinstava u 1989: Raspoloziva i upotrebljena sredstva: Proseci po clanu domacinstva*, Statistical Bulletin No. 1845, Belgrade: Federal Office of Statistics, 1990. As explained below, Yugoslav income data were corrected. For Czechoslovakia, the data are published in *Mikrocensus 1988:1.dil*, Prague: Federal Statistical Office, 1990. Data for Hungary (1989) and Bulgaria (1989) were supplied by the countries' Central Statistical Office (CSO) on computer spreadsheets and are available from the author on request.

Yugoslav, Polish and Bulgarian surveys are conducted annually. In 1989, they covered respectively 6230, 28285 and 2720 households, representing approximately 0.1, 0.25 and 0.09 percent of all households. Yugoslav and Polish surveys have been frequently used by researchers and are considered fairly reliable even if not entirely free of problems. For example, the definition of income in the Yugoslav survey is incorrect because the concept used is more akin to revenues; the published data were therefore corrected and several categories, withdrawals from saving accounts, sale of assets, were subtracted. In Poland, surveys cover about 90 percent of the population, leaving out the non-agricultural private sector, army and police personnel. The Bulgarian survey follows the so-called branch principle, which means that households are selected at the place of work. This provides for a good check of wage data but biases the results since some household incomes are unreported because the survey relies only on recollections of one household member and some groups, such as private sector workers and students, are underrepresented

The Czechoslovak survey is a periodic survey. The last survey prior to the one in 1988 was conducted in 1985. The 1988 survey includes about 1.9 percent of all households. Hungarian data originate from two separate sources. The first is the 1987 income survey done on about 22,000 households, 0.55 percent of all households. Income surveys are conducted

every five years. The second is the 1989 household budget survey. Budget surveys are done every two years on about 12,000 households. The Hungarian CSO analysts hold that income surveys provide better income data while budget surveys are deemed more reliable for expenditures. Using micro-simulations, the CSO updated earning/income figures from the 1987 income survey to obtain income estimates for 1989. The CSO thus also accounted for the impact of personal income taxation introduced in 1988. A statistical reweighting was then undertaken to reconcile the updated income survey and the budget survey and produce a single set of data.

Ranking of Recipients

Polish and Hungarian data rank individuals into ten deciles according to respectively gross and disposable income per household member. Yugoslav, Bulgarian and Czechoslovak surveys rank households and, since the data on average household size are provided, also individuals into ten, in Yugoslavia and Bulgaria, and twenty-five, in the CSFR, income groups. Income groups are formed according to gross income (gross money income in CSFR) per household member.

The Definition of Income

The problem of what constitutes income is, in addition to the usual reasons, such as treatment of capital gains, distinction between nominal and real return on assets, etc, compounded because of (1) income earned in the second or underground economy, (2) unsatisfactory design of the surveys that mixes household income with revenues such as those derived from the sale of assets, and (3) exclusion of practically all implicit sources of income except for consumption in kind.

The first problem is satisfactorily dealt with only in Hungary. Other countries do not attempt to measure tips, black incomes or to account for possible underestimation of income by the households. The second problem is present in Yugoslavia and the income data were, as explained, corrected.

No survey, except Hungarian, covers property incomes other than net income of the self-employed. The Hungarian survey includes net income from financial assets. Other surveys provide information on deposits and withdrawals from saving accounts that can, after making some assumptions about the relationship between the average stock of deposits, withdrawals, and interest received, be used to estimate the value of real interest received. However, the omission, in reality, is not very important. In both 1988 and 1989 the real interest rate on household deposits was

negative or at best zero in all the countries and income accordingly was nil, even if strictly speaking income should be reduced when real interest is negative. Capital gains and losses or rents from owner-occupied housing are not estimated. Probably the most important omission are capital gains realized on foreign exchange holdings.

A more fundamental problem is the suitability of using money income alone to measure inequality in conditions where there is rationing, subsidization and widespread payments in kind. To quote Bergson (1984, p. 1058) "(w)ith prices below clearing levels, money income ceases to be the sole determinant of capacity to acquire goods; to a degree, fortitude in searching out supplies and standing in queues, and plain luck, become consequential". Households receive implicit income from consumer subsidies, which hold prices below equilibrium levels, below-market rents, negative interest rates charged on consumer loans, collective consumption such as enterprise financed health care, cafeterias, vacations, etc., or special, often in-kind, bonuses and premia. On the other hand, households' income was implicitly reduced through the payment of negative interest rates on saving deposits and the inflation tax on money.

Subsidies paid out by the state to cover the difference between costs of production and retail prices of consumer goods, inclusive of housing subsidies, give an indication of the size of of transfers. Because equilibrium prices of some of the subsidized products and services are greater than their costs of production, as is the case, for example, for housing or electricity where explicit subsidies cover only operating costs, explicit subsidies represent a lower limit of actual transfers.

Table A1 shows that explicit subsidies ranged, in terms of GDP, between 6 and 7 percent and in terms of households' gross incomes amounted to twice that percentage. Only in Yugoslavia, were explicit subsidies negligible.

The pervasiveness of the system, subsidized vacations for workers, special shops stocked with unavailable consumer durables for miners, etc., does not allow one to assert, as is sometimes done, that inclusion of implicit incomes would necessarily increase income disparity.[18] On the

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[18] An exaggerated perception of the nomenklatura fringe benefits is common in Eastern Europe. It is due to often secretive nature in which these benefits were distributed. This has led people to ascribe them greater importance than they really had.

contrary, there is strong evidence that consumer subsidies, easily the largest chunk of implicit income, have an opposite effect which is likely to offset that of the nomenklatura perks.

Table A1: EXPLICIT (PAID-OUT) CONSUMER SUBSIDIES a/		
	In percent of GDP	In percent of household gross income
Poland (1989)	6.7	13.8
Hungary (1989)	6.7	12.4
Czechoslovakia (1988)	5.8	12.9
Bulgaria (1990)	3.2	n.a.

a/ Excludes agricultural subsidies to producers and subsidies to loss-makers.

Note: Poland: food, transport and housing subsidies. Hungary: consumer and housing loan subsidies (from OECD, 1991, Table 10, p.64). Czechoslovakia: negative turnover tax (consumer subsidies) plus subsidies for housing, residential heating and urban transport. Bulgaria: consumer subsidies for "essential" products (from World Bank 1991, p.38).

Using estimates by Matthews (1978) and various data on the nomenklatura perks in Poland, Morrisson (1984) estimates an alternative income distribution in Eastern Europe that includes the monetized value of fringe benefits appropriated by the nomenklatura. Morrisson's results (1984, Table 2) suggest that the Gini ccefficient increases by 3 to 4 Gini points. On the other hand, consumer subsidies are income-equalizers and due to their size exert a significant impact on income distribution. For Poland, it is calculated that inclusion of consumer subsidies reduces income inequality, measured by the Gini coefficient, from 21.8 to 20.0. Kupa and Fajth (1990, p.37) similarly calculate for Hungary that the Gini coefficient is reduced from 23.1, for disposable income, to 22.0, for disposable income plus subsidies. Finally, for CSFR some preliminary evidence points to the same conclusion: the negative turnover tax, a type of consumer subsidy, represents 7.1 percent of households' expenditures in the lowest and 4.4 percent in the highest income decile (World Bank, 1991, p.59). On the basis of household expenditure surveys, Vecernik (1991, p.17) calculates that lowest quartile of households received per capita 7.5 percent more food subsidies than the average while the top quartile

received 6.1 percent less than the average.[19]

The inclusion of consumer subsidies on top of the nomenklatura in-kind benefits would probably bring the Gini coefficient close to its money incomes only value. It can be thus argued that the use money income yields an accurate picture of income inequality even in socialist economies. Moreover as far as international comparisons are concerned, similar adjustments for in-kind benefits could easily increase the measured inequality in market economies. In some countries, e.g. Japan, fringe benefits of upper management often exceed their salaries while the offsetting effects of consumer subsidies on income distribution are negligible.[20]

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[19] The implicit assumption is that households with different incomes pay the same average price for the subsidized good. In other words, if they do not buy the entire quantity at the subsidized price, the percentages of consumption at subsidized and free-market price are independent of the level of income.

[20] Note that social transfers to the poor are largely monetized and already included in the money income.

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