Research in Progress 1

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Giovanni Andrea Cornia

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Transition and Income Distribution: Theory, Evidence and Initial Interpretation

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1. INITIAL CONDITIONS: RELATIVELY LOW LEVELS OF PRE-TRANSITION INCOME INEQUALITY

Contrary to a widespread belief, prior to the transition, income distribution in the former centrally planned economies of Europe varied substantially across countries and over time. Assessment of the degree of income inequality in these nations therefore largely depended on the choice of a specific year and country.

Over the 1960-1989 period, earnings dispersion remained broadly constant in Czechoslovakia and Hungary, and declined substantially in Russia and Poland following the introduction of subsequent wage reforms and the increase in minimum wages (Atkinson and Micklewright 1992). In turn, the inequality of the distribution of net disposable income somewhat narrowed up to the mid-late 1970s, but increased moderately during the mid-late 1980s in Hungary, Poland and Russia. (Similar trends - a widespread decline until the mid-late 1970s, followed by an increase in income dispersion during the subsequent ten years - were observed also in the industrialized market economies: see Boltho 1992). The increase in income differentials during this period has often been put into relation with the spread of the 'second (or informal) economy' in Hungary and Poland (Boltho 1992) or to the introduction of the wage reform aiming at introducing greater incentives during the Gorbachov era in the USSR (Atkinson and Micklewright 1992).

Only in Czechoslovakia both distributions of earnings and net disposable income remained broadly constant, at remarkably low levels, during the entire pre-transition period, a fact that clearly stands out in the entire region. As noted by Teichova, in this country 'the desire for greater equality had deep historical roots in the social consciousness of a broad segment of society' (1988, p.101, cited in Atkinson and Micklewright 1992).

Throughout the pre-transition period, there were non-negligible differences in income concentration among the socialist economies of Europe (Table 1). The Soviet Union and Yugoslavia had consistently higher income dispersion than the countries of Central Europe (Hungary and Czechoslovakia) (Table 1).

Table 1. Summary of income inequality indexes in Eastern and Western Europe, 1986-7

Country	Gross Earnings*		Net Disposable Income	
	Gini Coeff.	Decile Ratio	Gini Coeff.	Decile Ratio
Czechoslovakia	19.7	2.45	19.9	2.41
Hungary	22.1	2.64	20.9	2.61
Poland	24.2	2.77	25.3	3.04
USSR	27.6	3.28	25.6	3.30
Britain	26.7	3.23	29.7	3.86
United States			31.7**	
Germany			25.2***	
Australia			28.7***	

Source: Atkinson and Micklewright, 1992, Milanovic 1993. * gross earnings refers to all money incomes (including overtime, bonuses and piece rate payments) before tax and other deductions of all male and female of all ages employed in all sectors (agriculture included); ** 1979;* 1981**

With the possible exception of the former USSR and Yugoslavia during the pre-transition period, the socialist economies of Europe exhibited a distribution of final incomes which was less skewed than that of the western market economies. Using data for the end of the 1960s and early 1970s, Pryor (1973) estimated that the Gini coefficients of the distribution of net disposable income were on average six percentage points lower in Eastern Europe. In view of the widespread increases in inequality during the 1980s observed in both market and centrally planned economies, such difference has likely remained unaltered until 1989, the year that we use in this paper as the transition's baseline. The lower income dispersion of the centrally planned economies, however, tended to fade when the comparison was made with the advanced 'welfare market economies', such as the Scandinavian and some central European countries(Tables 1 and 2). While also in this group of market economies the distribution of gross earnings was substantially more skewed than in the socialist countries, the distribution of net disposable income per capita was rather similar.

Four broad sets of factors were at the basis of this systemic difference between the socialist and capitalist market economies:

(i) Centralized wage regulation: In the socialist economies wage rates were set centrally. The relationship between wage rate on the one side and skill levels and prior investments of each workers in human capital was rather weak or non-existent. In addition, minimum wages were generally set (particularly in Central Europe) at substantially higher levels than in the market economies. The resulting earnings distribution was thus generally much more compressed than in the market economies (Table 1). As noted by Phelps-Brown, ' ... the [lower wage dispersion of socialist economies]..... arises mainly from a lower rise of income above the median, that is, broadly: the more skilled manual occupations and still more the higher clerical, the professional and the administrative, are paid less than in the West relatively to the bulk of the manual workers. Allowance for 'perks' reduces the contrast, but is unlikely to remove it.' (1988, p.303-4 cited in Milanovic 1993, p.2).

(ii) Collective ownership of means of production and 'barriers to entry'. Prior to the transition, only Poland, Yugoslavia and Hungary comprised a non-negligible private sector (estimated to account for about a third of the economy in the latter country).Even in these countries, however, 'barriers to entry' did not allow private entrepreneurs to undertake any activity in most industrial sectors. This dominance of the state in the economy reduced drastically the share of profits, rents, dividends and other capital incomes accruing to the individual households. The often considerable profits realized by the state-owned enterprises were either reinvested or transferred to the central government. In addition, the underdevelopment of the banking and financial sector sharply reduce the share of interests in total family income. All these incomes - profits, interests, dividends and rents - are generally distributed in a far more skewed way than labour income and, therefore, the greater their share in the total, the more skewed the distribution of total income.

(iii) Subsidies on basic goods and services. In the socialist economies, consumers benefited from substantial subsidies on a wide range of basic goods and services. In 1980, for instance, in Poland consumer subsidies accounted for around 10 per cent of the total national product (Cornia and Sipos 1991). Most of these subsidies were provided for goods with low income elasticity and which therefore benefited most the households at the bottom of the distribution. If this difference (in relation to the situation prevailing in the market economies where few of these goods were subsidized) is taken into consideration, the degree of inequality in the distribution of welfare in Eastern Europe was even lower than revealed by data on the distribution of monetary incomes.

(iv) Redistribution through the tax and transfer system. Prior to the transition, social transfers (pensions, family allowances, sickness benefits and other social transfers) accounted for a remarkable 22-25 per cent of total gross household income, i.e. values comparable to those observed in the advanced 'welfare market economies' of Northern and Central Europe (e.g. 29 per cent in Sweden, and 16-17 in Germany and the UK) and substantially larger than the 8-9 per cent observed in the USA and Canada. Pensions accounted for about two thirds of total transfers. These large transfers helped keep down poverty rates, but had only a limited effect in terms of altering overall income concentration (Table 2). The only exception were family allowances - which were proportionately greater than in all western market economies and which were strongly pro-poor. With this exception, transfers were basically granted on the basis of the demographic characteristics of the beneficiaries, were most commonly unrelated to the income level of the recipients and their incidence by income Decile was generally quasi-proportional. This was in marked contrast with the situation in the market economies where transfers were focused on low-income households.

Table 2. Changes in Gini coefficients due to redistribution

	CSFR	Hungary	Poland	UK	Sweden	Germany
Orig income+	26.0	31.9	34.5	39.3	41.7	40.7
Gross income	19.5	24.8	26.0	29.3	24.1	30.4
Dispos.inc.	19.9*	23.1	25.3*	26.4	19.7	25.2
Shifts in Gini coeff.due to:						
-transfers	-6.5	-7.1	-8.5	-10.0	-17.6	-10.3
-dir. taxes	0.4	-1.7	-0.7	-2.9	-4.4	-5.2

Source: Milanovic (1993);+ original income * from Table 1

Taxes generally took the form of payroll taxes borne by the enterprises. Except for Hungary - which had introduced income tax reform in the late 1980s - direct taxes amounted to no more than 1-2 per cent of the workers' gross earnings and played almost no role in reducing income dispersion. As a result of this situation, taxes and transfers played a lesser role in shaping the distribution of net disposable income than in the western market economies. Indeed, it is interesting to note that the same distributive objectives - e.g. a final distribution of net disposable income per capita with a Gini coefficient of, say, 23.0 - was obtained through a compressed distribution of earnings and control over the share of capital income accruing to the household sector in the former socialist economies, and through redistribution in the western market economies (Table 2).

The above data refer to monetary incomes and do not therefore fully reflect the distribution of real consumption and welfare. Indeed, in economies suffering from chronic rationing of many consumer goods, the real distribution of welfare was often less favourable than suggested by the above statistics, which disregarded the influence of dual distribution systems, growing regional differences in the supply of consumer goods and the rising intensity of shortages over time, i.e. factors that have had a large (though poorly documented) disequalizing impact on the distribution of private consumption and welfare (Kornai 1986, Braithwaite and Heleniak 1989). For instance, though in the USSR the official measures show that income distribution become more egalitarian between 1970 and 1986, private consumption became less equally distributed. By and large, growing differences in the distribution of 'real' (as opposed to 'monetary') private consumption emerged between Moscow and other important cities, the supply centres along the Baikal-Amur railroad on the one hand and the rural areas and remote cities on the other.

2. REFORM PROCESS AND EXPECTED CHANGES IN INCOME DISTRIBUTION IN TRANSITIONAL ECONOMIES

2.1. Main reforms with large distributional implications. The transition to the market economy has been characterized by a number of structural reforms. Those with the most direct distributive implications are briefly discussed hereafter:

(i) Re-establishment of macroeconomic balance, aiming at eliminating the repressed inflation and fiscal imbalances inherited from the socialist era. Macroeconomic measures have inevitably involved fiscal and monetary austerity, with simultaneous trade and price liberalization, the removal of consumer (and producer) subsidies, the unification and sharp devaluation of the exchange rate and an increase in the interest rate. Price liberalization (and the inflationary repercussions of devaluation) were expected to generate a large but short-lived bout of 'corrective inflation' which was expected to be rapidly reduced through restrictive monetary and fiscal policies and through the stability of money wages and the exchange rate (the two 'anchors' of the stabilization programs). In most countries, however, these measures led to a much higher inflation rates and much greater falls in wage rates and GDP than expected;

(ii) Privatization of state assets. Privatization moved in three different directions: 'small privatization' of shops, service units, etc.; 'big privatization of large SOEs, land and other large assets by means of auctions, direct sales to foreign companies, 'restitution to the former owners (reprivatization)', insider or workers privatization and 'voucher privatization'. The approach to privatization has varied considerably, from a largely 'insiders privatization' in Russia to 'voucher privatization' in the Czech Republic. Equally important, most 'barriers to entry' have been removed;

(iii) Labour markets have been liberalized and wage setting is now left to the free negotiations of the social partners. With the exception of the Central European countries, minimum wages - an important tool in the determination of the overall earnings distribution - have been left to fall in relation to the average wage. Meanwhile, wage setting in the public sector (health and education) has often been affected by the fiscal adjustments made in these last years; and finally an income policy based on wage control aimed at avoiding the inflationary pressures which could have derived from an increase in aggregate demand fuelled by an increase in nominal wages. This policy has entailed the application of a highly progressive tax on the portion of the wage bill that surpasses a pre-established ceiling. The imposition of a pre-defined average wage has often led to an increase in wage dispersion, as companies depress wages in order to increase the wages of qualified workers with skills in short supply.

(iv) During the initial phase of the reforms, the coverage of several **social transfers** (e.g. family allowances) has been generally enlarged, while new types of social transfers (unemployment compensation and social assistance) have been introduced to cover the protect the households against the risk of joblessness and poverty (UNICEF 1995). Because of the growing fiscal difficulties faced by most economies in transition in the subsequent phase the generosity, coverage and duration of most benefits has been gradually reduced. With few exceptions (the Czech Republic and Slovakia), despite the many proposals about targeting, child allowances have broadly remained universal (though, as noted, with sharply declining real values).

(v) Tax reform has generally been inspired by the West European taxation model including indirect taxes (mainly built around a VAT), corporate income and personal income tax. Progress in the establishment of an adequate tax administration and in particular in the introduction of presumptive taxation, have however generally lagged behind. Considerable income originating from a growing 'informal sector' often remains untaxed, thus causing considerable problems of horizontal equity and fiscal viability.

2.2. Ex-ante expectations about shifts in income distribution. Unlike in the case of China - where until 1993 the reforms proceeded on a trial and error basis (since then the objective of building a 'social market economy' has been made explicit) - the transition in most of Eastern Europe deliberately aimed at creating a full-fledged market economy, i.e. an economy - as noted - generally characterized by higher income inequality. In principle, therefore the policy changes discussed above can be analysed ex-ante so as to ascertain the extent of the changes. Generally speaking, these changes were expected to lead to a sort of 'rapid catch up' with the levels of inequality observed in the western market economies. From an analytical perspective, economic theory suggested a few specific changes in the distribution as a result of the following changes:

(i) With privatization of state-owned assets and the removal of 'barriers to entry', the share of total profits (and mixed capital and labour income) accruing to the household sector is likely to rise. It is also probable that the share of profits and other capital income in total household incomes will rise. In principle, the faster the privatization and the growth of the 'new' private sector, the faster the increase of the share of private profits in the total. In practice, the dispersion of the distribution of profits and similar incomes varies with the degree of concentration in the distribution of assets and, therefore, with the privatization models followed over the last seven years. The dispersion of profits is likely most pronounced in the case of 'reprivatization', the least in that of voucher privatization and auctions and somewhere in the middle in that of workers' privatization. Similar considerations can be made for the rents, interests and other capital incomes.

(ii) Widening earnings differentials. Ex-ante, the abandonment of the centralized wage regulation can be expected to lead to growing earnings differentials due to:

- the emergence of a closer relationship between (past) investments in human capital and earnings levels. With stronger returns to human capital (Rutkowski 1994), the earnings distribution is expected to become much more skewed. In particular, the right tail of the distribution is expected to 'explode' because of rises in the wages of managers, professionals and skilled workers;
- second, with **price and wage** liberalization (and, in particular, with the rise of the energy and raw material prices - which were set before at levels substantially lower levels than international prices), productivity differentials across industries can be expected to rise. These rising differentials - explained only in part by differences in skill levels - are expected to be translated in growing intersectoral wage differentials;
- third, with the removal of 'barriers to entry', overall wage dispersion will be influenced by the spread of the (unregulated) informal sector, where wage differentials are generally much greater.

(iii) Changes in transfers incidence. The shift to the market economy is also likely to be accompanied by changes in the redistributive role of the tax-and-transfer system. Firm speculations about the direction and extent of these changes are not entirely feasible as several regimes of social security (with different degrees of generosity, progressivity and financing) are compatible with and observable in a market economy. Yet,

a few generalisations can be ventured:
- changes in the pension systems (where the shift to an insurance basis will increase the attention to the contributory history and last wage level of the insured will increase and the degree of redistributivness will decrease) are very likely to increase the inequality of the distribution of pensions. In some sense, the distribution of pensions (which will remain financed by the state budget for several years before becoming fully financed by the insurance premia);
- in contrast, the introduction of new transfers - such as unemployment compensation and social assistance which are generally well targeted on the poor - and the possible better targeting of family allowances, are likely to cause a fall in inequality;
- finally, *ceteris paribus*, a downsizing of the overall volume of transfers - to realign it to the level of countries with similar levels of income per capita (in the USD3000-6000 range) - would likely cause a moderate increase in inequality;

(iv) Tax reform: Unlike that of the socialist countries (characterized by modest progressivity or outright proportionality), the tax system of the market economies (comprising personal and corporate income tax and the VAT) are generally characterized by medium to high progressivity. A tax reform along these lines would therefore have, if properly implemented, an important impact on the distribution of the net per capita household income. This equalizing effect is likely to emerge gradually with the concrete implementation of these reforms - which normally take several years to reach steady state;

(v) Subsidy removal: Except for possible hypothetical (positive) 'second round effects', the removal of subsidies is very likely to have a negative impact on the distribution of welfare.

In conclusion, the ex-ante expectations about the effects of the recent transition policies can be tentatively summarized as follows:

Table 3. Summary of ex-ante expectations about the impact of the transition on income inequality

	Greater Inequality	Lower Inequality
• privatization	+++	
• wage liberalization	+++	
• transfer reform		
pensions	++	
other transfers		
• tax reform		
• subsidy removal	+	
• Overall effect	+++	

While the above analysis tend to suggest that it is possible to determine ex-ante the **direction** of the changes in income distribution, much less can be said about the **extent, speed and mix of causes** of the actual changes to be expected. In addition, data about income distribution in western and developing market economies, reveals a wide variety of model of economy and income distribution, ranging from that of the 'advanced welfare market economy' characterized by levels of income inequality similar to that of the socialist economies, to that of the 'corporatists market economies' of Western Europe, to that of the 'liberal anglosaxon economies', to, finally, the middle-income highly-unequal developing nations of Latin America.

3. EVIDENCE ABOUT CHANGES IN INCOME DISTRIBUTION, 1989-94

3.1. Data sources and caveats

Our analysis of changes in income distribution during the transition relies heavily on the statistical material generated by the Central Statistical Offices of the region. Among this material, a key source of information is represented by the Household Budget Surveys (HBS). These surveys - which are normally taken with yearly periodicity - allow to compute changes in: income structure by type of income(both on average and by income decile); the distribution of income pre-tax/pre-transfers and post-tax/post-transfers; the distribution of gross earnings and of others incomes; the incidence by decile of income transfers; etc.

According to Atkinson and Micklewright (1992), the HBS of Hungary, Poland and Czechoslovakia were generally of good quality and the resulting data on the distribution of earnings and disposable incomes of comparable quality to those generated by the British HBS. The same authors indicate, however, that the situation was less satisfactory in the USSR. Until 1992, the HBS in this country involved no less than 47.3 thousand families, of whom 36.4 thousand were state employees and the remainder kolkhozni (McAuley 1994). The survey suffered however from a considerable **sampling error**: the sampling frame was based on employment records and thus excluded some of the poorest groups, such as families headed by students and pensioners, and - later on - the families of the unemployed. Since 1992, the sample size of the Russian HBS has declined to around 1600 families, thus reducing its representativness at the subnational level. At the same time, however, changes in sampling procedures should have substantially reduced the sampling error.

While in most countries (including most of those part of the former USSR) the last few years have witnessed a general improvement in sampling procedures and a reduction in sampling errors, growing informalization of the economy and the introduction of direct taxation (which render the ascertainment of incomes more difficult and discourage their declaration for fear of having them taxed) have generally led to growing **under-reporting errors.** The accuracy of reporting - and the precision of the measurement of inequality - appears to be particularly low in the case of informal sector incomes. According to Rose (   ) between .. and .. per cent of the households in the transitional economies of Eastern Europe had one foot in the second economy and between .. and .. in the third economy. There is some evidence also that the people being undersampled or whose income are measured inaccurately belong to the two tails of the distribution - and in particular to the right tail - thus substantially reducing the measured income inequality.

Our analysis of income inequality draws also from a number of administrative and social security records (on pensions, unemployment compensation and family benefits) as well as on wage surveys conducted at the enterprise level. These wage surveys too, however, tend to underestimate inequality as they mostly do not include enterprises in the private sector (where wage dispersion is more pronounced) and in the informal sector (where wage differentials are said to be very large).

Finally, our analysis ought to use some data on the distribution of assets. Information on these variables is extremely difficult to come by but would provide an important crucial complement to the picture on overall income inequality.

While it is impossible to assess precisely the net effect of these two changes - lower sampling error and higher under-reporting error - on the measurement of inequality, the limited evidence available (from targeted surveys, bank accounts, etc.) would suggest that capital and informal sector incomes and private sector earnings are under-estimated and overall inequality higher than that estimated on the basis of the HBS. A second conclusion is that the data on income inequality are, at times, not strictly comparable over time as sample size, sampling procedures and statistical concepts have at times been changed. Whenever possible these changes in concepts have been footnoted in the relevant tables.

3.2 Changes in the distribution of net per capita household income: two emerging patterns.

As expected, income inequality generally showed a clear tendency to rise during the transition to the market economy. However, within the region, the intensity, timing and causes of such a rise have been far from uniform. Two broad patterns can be distinguished:

(i) The Central European pattern: a clear but moderate increase in inequality. Over the entire period, these economies (whose HBS suffer from smaller sampling and under-reporting errors than those of the FSU countries) experienced only a relatively moderate increase in the inequality of the distribution of net per capita household income (Tables 4 and 5). The increase ranged from **2.7 (Hungary) to 5.5 (Romania) percentage points** of the Gini coefficient, an amount surprisingly similar to the 'average difference' between the market and socialist economies of Europe during the pre-transition period (see above). Almost proportionate increases were observed for the Decile ratio (Table 5). At present, these economies have levels of inequality close to that of the medium- to high-inequality countries of the OECD group, i.e. countries such as the UK, Italy, France and Canada and already higher than those of the Scandinavian countries, the Benelux and Germany (Atkinson et al 1994).

In a sense, for these economies one could speak of a **'physiological rise of income inequality'** to the levels typical of a western market economy. In our view, however, this 'spontaneous adaptation' hypothesis is rather simplistic and not borne out by the evidence available (see below). In fact, even in this countries, the structure of inequality remains quite different from that of the developed market economies. In addition, it is likely that a further substantial increase will occur in the years ahead.

Table 4. Gini coefficient of net per capita disposable household income, 1989-94

	1989	1990	1991	1992	1993	1994	Difference	
Czech R.	18.5	20.1	22.2	21.0	..	..	2.5	3.7
Hungary	21.4	..	20.5	..	23.2	..	1.8	2.7
Poland	26.9	25.9	25.6	26.9	29.3	30.4	3.5	4.8
Romania	..	22.3	24.8	25.9	27.6	25.2?	2.9	5.3
Rom§	23.5	22.9	25.6	26.7	28.2	28.4	4.9	5.5
Slovenia#	23.7	..	21.0	22.0	25.0	..	1.3	4.0
Slovakia#	18.7	18.5	18.8	..	22.9	22.5	3.8	4.0
Bulgaria	..	25.0	28.0	30.6	32.1	35.3	10.3	10.3
Estonia#	27.7+	..	..	34.3	35.6	38.6	11.9	11.9
Lithuania#	27.5+	25.0	..	38.9	39.4	37.0	9.5	12.0
Moldova#	26.7¤	..	26.0¤	..	..	40.0¤	13.3	14.0
Russia#	25.7*	..	26.0	28.9	39.8	40.9	15.2	15.2

 # UNICEF 1995; § refers to the distribution of the net household disposable income; + not directly comparable with the Gini coefficient of the subsequent years due to changes in the sampling framework - this change likely overestimates the increase in inequality; ¤ estimate; * refers to gross household income per capita;

Indeed, during the first two-three years of reforms, in all Central European economies the Gini coefficients stagnated or declined, rather than caught up. What explains this initial deviation from the expected trend and the relatively modest increase in inequality over the entire reform period it contributed to?

Table 5. Decile ratio of the distribution of net per capita household income, 1989-94.

	1989	1990	1991	1992	1993	1994	Difference
Czech R.							
Hungary	2.53	..	2.39	..	2.66	..	0.13
Poland	3.40	3.22	3.14	3.37	3.84	3.92	0.52
Romania	..	2.67	3.14	3.22	3.22	3.18	0.51
Slovenia#	2.04	2.01	2.08	..	2.56	2.75	0.71
Slovakia							
Bulgaria	..	..	3.72	3.82	4.33	..	0.61
Estonia#							
Lithuania#							
Moldova							
Russia#	..	..	5.40	8.60	11.20	15.10	9.70

Sources: same as in Table 4

First, the 1989-1991/2 period was characterized by a severe recession. Recessionary adjustments do, in principle, worsen income distribution because of the fall of the 'wage share' in total income caused by the increase in unemployment and the more than proportional fall in wages in relation to average incomes. All transitional economies have suffered from such disequalizing tendencies: GDP and income per capita fell everywhere between 1989 and 1994, with point-to-point slumps ranging by 9-10 per cent in Hungary and Poland and by an unprecedented 70 per cent in Moldova and Ukraine (UNICEF 1995). Similarly, in Russia, the real average per capita income plunged by about 40 per cent in 1992 alone (ibid). On average, the drop has been far more pronounced in the countries of the former Soviet Union and Southern Eastern Europe than in those of Central Europe.

Second, income distribution is influenced by the volume and targeting of transfers. Transfer policy in Central Europe has been substantially different from that implemented in South Eastern Europe and the former Soviet Union. Overall transfers to households on account of pensions, unemployment benefits and child allowances as a share of total household income have increased or remained broadly constant (at generally higher levels) in Central Europe but generally fell or stagnated at lower levels in Southern Eastern Europe and the former Soviet Union (Table 6).

In some cases, the fall in the **volume of transfers** (which generally have a more favourable incidence by decile and therefore produce an equalizing impact on the overall distribution of income) has taken dramatic proportions. In Russia and Romania, for instance, despite official policies on the indexation and enlargement of coverage of child allowances, child-related transfers have fallen continuously from the beginning of the transition until 1994 thus contributing to a rapid rise in income concentration (UNICEF 1995). In Russia, a new benefit system was introduced in January 1994; even with this change the child allowance-average wage ratio remained 30 per cent below its January 1992 level (ibid).

Table 6. Share of income transfers in total income, selected countries, 1989-1993/4.

	1989	1991-2	1993-4
Hungary	26.1	28.2	26.7
Poland	21.2	34.4	....
Slovenia	10.9	....	20.4
Romania	12.5	9.3	7.8
Bulgaria	21.9	21.6	19.0
Estonia	....	12.9	12.8
Moldova	11.3	....	8.3
Russia	12.8	12.4	15.6
Ukraine	16.3	11.2	....

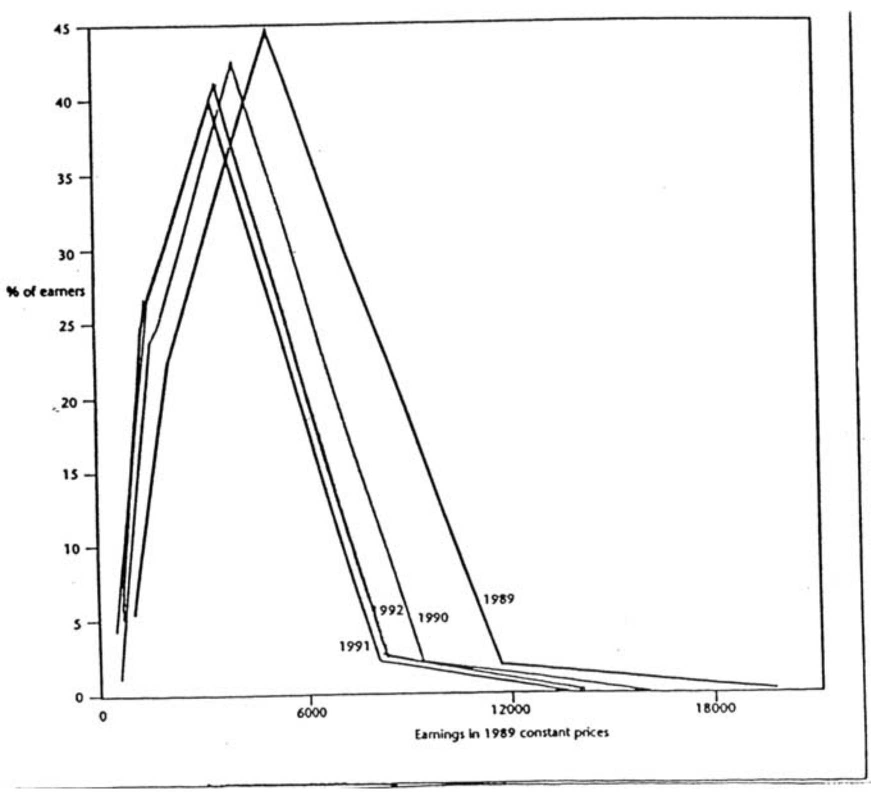
Source: UNICEF (1994) and (1995)

It is important to note that overall income inequality is influenced also by the composition and **targeting of these transfers,** and not only by their volume. *Ceteris paribus,* pensions tend to have a less favourable concentration ratio (i.e. are distributed in a less progressive manner) than unemployment compensation and family allowances. In Poland, for instance, the increase in inequality would have been moderated by a different composition and better targeting of transfers ( ). Though it is not possible to provide here a satisfactory analysis of changes in the targeting efficiency of transfers in Central vs Southern Europe and the FSU over the last 5-6 years, there are indications that - with the exception of Poland - the composition and targeting of transfers in CE has been more favourable than in SEE and FSU. Also in the first group of countries, however, social transfers have failed to mitigate the increase in inequality as their targeting has broadly not improved during the last five years, as their concentration coefficient has remained broadly close to zero (Milanovic 1995).

Third, earnings inequality rose much slower than anticipated. While this could have been expected in Hungary that by 1989-90 had Gini coefficients and decile ratios of the earnings distribution in the 26-29 and 2.8-3.0 range, i.e similar to those of Western Market Economies (Charts 1 and 2), it is more difficult to explain for the Czech Republic, Slovakia and Romania (this point is discussed in greater detail in section 5). Whatever the cause, the distribution of earnings has apparently developed in a far less skewed way in Central Europe than in the other economies in transition of Europe.

Fourth, privatization has proceeded slower than in Russia, at least during the first two-three years after the onset of the reforms (this is certainly the case in Poland, Slovakia and Slovenia). A slow approach to privatization delays the increase in the share of capital incomes in the total and thus retards the inequalizing effect on the overall income distribution expected from the surge of capital and entrepreneurial incomes and the adoption of more skewed wage scales in the private sector of the economy.

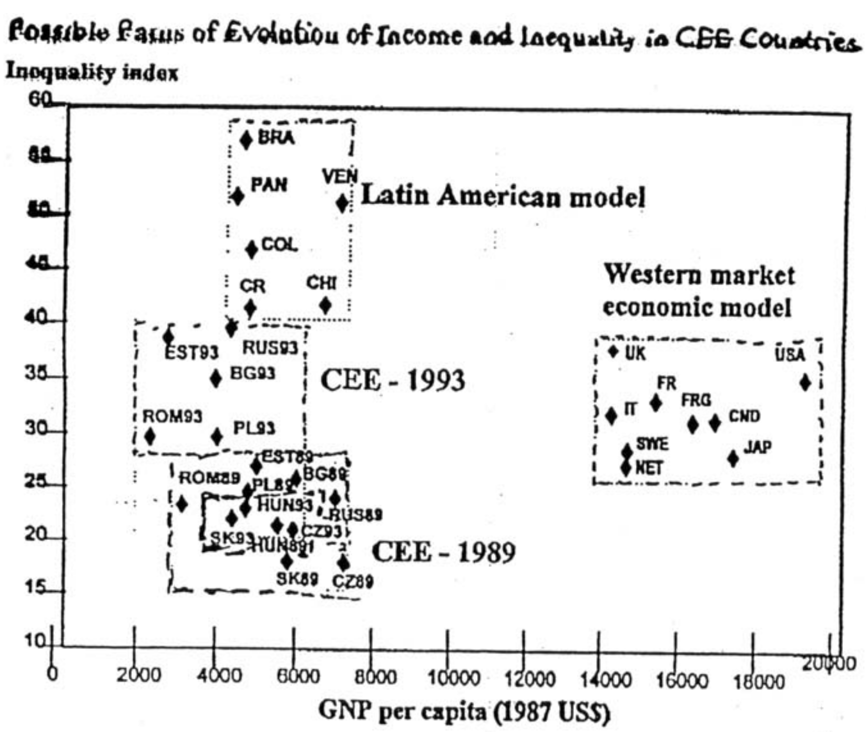
Chart 1. Changes in the distribution of gross earnings in the Czech Republic, 1989-92



(ii) rapid rise in the FSU and SEE. In contrast to the situation in Central Europe, in most successor states of the former Soviet Union and of South Eastern Europe, income inequality has risen very rapidly over the 1989-94 period. In most cases, the increase in inequality has been unprecedented. On average, the Gini coefficient of the distribution of net per capita household income has risen by 10-15 percentage points (Table 4) - i.e 2.5 times faster than in Central Europe - while the decile ratio has grown even faster (Table 5), thus indicating greater shifts in the tails of the income distribution than in its central part. Also in this case, the growth of inequality appears to have been accelerating since 1992, a fact - however that is hardly surprising in view of the widespread delay with which reforms were introduced in this part of the region. Only in Bulgaria (where the transition reform began in 1990), has income inequality appears to have been increasing steadily over 1989-94.

The degree of income inequality in Russia, the other FSU countries and Bulgaria is now substantially greater than in most OECD countries which in the late 1980s typically exhibited Gini coefficient of around 0.25 -0.30 and decile ratios of 2.5-4.5 (Table 2). In a sense, the shape of income distribution in these countries is gradually moving in the direction of that of high-inequality countries of Latin America (Chart 1).

Chart 2. Evolution of income inequality and GDP/capita, in clusters of EE countries 1989-94.



In Russia, one of the countries with the sharpest increases in inequality, for instance, between 1991 and 1994 the income share of the bottom sixty per cent of the population declined by 15.8 percentage points, that of the fourth pentile remained broadly constant and the share of the top pentile (especially the top 5 percent) increased by 15.5 per cent (Table 7). In March 1994 the richest 5 percent of the population controlled a share of income similar to that of the bottom sixty per cent.

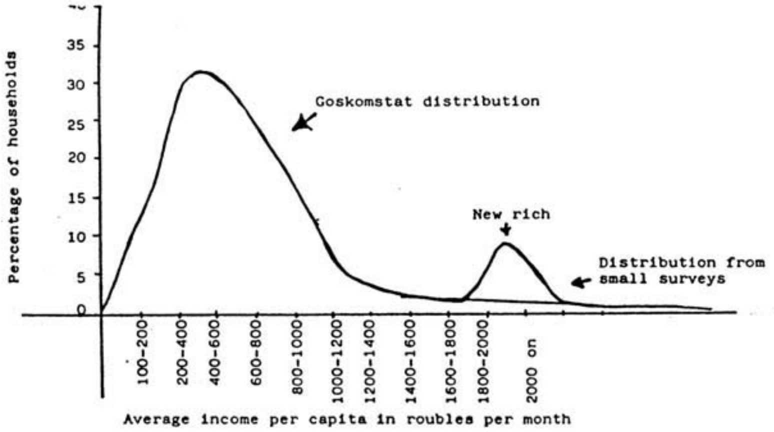
Table 7. Income Shares of Population Pentiles, Russia, 1970-95

	1970	1980	1990	1991	1992	1993	1994	1995
1st pent.	7.8	10.1	9.8	11.9	6.0	5.8	5.3	5.5
2nd	14.8	14.8	14.9	15.8	11.6	11.1	10.2	10.2
3rd	18.0	18.6	18.8	18.8	17.6	16.7	15.2	15.0
4th	22.6	23.1	23.8	22.8	26.5	24.8	23.0	22.4
5th pent.	36.8	33.4	32.7	30.7	38.3	41.6	46.3	46.9
Pent.rat.*	4.71	3.27	3.34	2.58	6.38	7.17	8.73	8.53

Source: Goskomstat (1995) and (1996); * ratio of the 5th to the 1st pentile

Even these data give only a partial idea of the distributional earthquake underway in this part of the region. Indeed, in view of the growing under-reporting of income affecting official surveys (see above), it is likely that the extent of inequality - and its acceleration over the last three years - are substantially higher. Smaller surveys (suffering from lower under-reporting of incomes) seem to indicate, for instance, that the income distribution not only has become more skewed but that has also become bimodal with a second local maximum as indicated below in Chart 2. This second bump would correspond to a new class of 'new rich'.

Chart 3. Shape of income distribution in Russia



As for the factors behind the faster rise in income inequality in relation to Central Europe, one can mention:

- **a much sharper recession** which depressed more than proportionately the wage share in total income (Table 8). While over 1989 and 1994, real output fell by up to 20 per cent in the Central Europe, it contracted by over 40 per cent in most countries of the former Soviet Union and Romania. In addition, in these countries, the drop of the wage share in real incomes is underestimated due to the late payment or non-payment of wages. The problem intensified in 1993 and 1994 when the overall amount of credit granted to the enterprise sector was restricted for macroeconomic reasons. Enterprises reacted not with bankruptcy or mass layoffs, but by building up arrears. Already by November 1993 wage arrears accounted for 21 percent of the monthly wage bill (Nell and Stewart 1994);

- **a substantially lower - and/or falling - volume of transfers** (Table 6) and their less precise targeting. In Bulgaria, for instance, the bottom three deciles receive now only 40 per cent of unemployment benefits as opposed to the situation of Chile where almost half of the benefits from public works and unemployment compensation accrue to the lowest income decile and 3/4 to the bottom three deciles (Milanovic 1995). In Russia, for instance, social assistance accrues proportionately more to the upper than to the lower-income deciles (World Bank 1994);

- third, **earnings inequality has risen much faster** than expected and than in the Central European economies, particularly in Russia, Ukraine and Moldova (Table 9). Whether the driving force behind this increase in inequality has been 'rising returns to education' or other factors is discussed in section 5;

- finally, in some but not all of these countries (e.g. Russia but not Ukraine), earning inequality increased also because of the **fast pace of privatization** which has pushed up the share of private incomes, which - as repeatedly noted - of all broad income categories is that most unequally distributed. In Russia capital and self-employment incomes provide now a greater share of total income than wages and salaries (Table 8). In Bulgaria, inequality of private sector income, already higher than that of other sources, shot up at the same time as its share in the total rose steadily (Milanovic 1995).

5. A TENTATIVE EXPLANATION OF THE CHANGES IN OVERALL INEQUALITY

5.1 Decomposing the increase in overall inequality

Kakwani (1980) has shown that at any point in time, the Gini coefficient can be decomposed as follows:

$$G_t = 1/m_t \Sigma \; m_{jt} \; C_{jt}$$

where C_{jt} is the concentration coefficient of the j-th income components and m_j its mean; m is in turn the overall mean of total income. The ratio of the former to the latter is equal to the share of the j-th income component in the total. The concentration coefficient C_{jt} is similar to the Gini index except that the ranking of individuals is by the total income and not the j-th income components. As a result C_{jt} can be negative. The above expression can be re-written as $G_t = \Sigma \; s_{jt} \; C_{jt}$ where $s_{jt} = m_{jt}/m_t$. If we assume for simplicity that there are only 2 incomes, the increase in total inequality between time t and t+n (measured by the difference by the Gini coefficients of the two time) can therefore be decomposed as follows:

$$G_{t+n} - G_t = (s_{1t+n} {}^* C_{1t+n} - s_{1t} {}^* C_{1t}) + (s_{2t+n} {}^* C_{2t+n} - s_{2t} {}^* C_{2t})$$

In practice this requires the knowledge of the shares of each type of income in the total (that is, of the income structure) for both the initial and final year, as well as the value of the concentration coefficients for each type of income for the same years. Not all this information is available to us for all countries analysed in a sufficiently standardized way. It is impossible therefore to conduct at this stage a formal decomposition analysis following the above approach. Yet, information on some of these components for a few key countries allow us to apply this approach in part and to sketch the main trends in this area with a sufficient degree of confidence.

5.2 Changes in income structure

Changes in income structure affect overall inequality whenever the share of those incomes that are distributed in a more skewed way (such as capital, entrepreneurial and self-employment income, see Table 10) rises and that of those incomes that have lower dispersion (such as transfers and gross earnings) conversely drops. The available information (see for instance UNICEF 1995 Table F.2) shows that during the transition the following regularities have been observed:

- **the share of wages and salaries** in total income has steadily declined as a result of the sharp recession of 1989-92/3 and of the structural changes introduced as part of the transition reforms, e.g. the progressive liberalization of wage negotiations, the imposition of a tax-based income policy (which heavily taxed increases in nominal wages), the emergence of unemployment and - particularly in countries of the former Soviet Union - the unwillingness to sustain the minimum wage and the wages of most state sector employees. In Armenia, Belarus and Russia, for instance, the minimum wage was left to fall from between 26-36 per cent of the average wage in 1989 to 8-10 per cent in 1994 (Table 14), while in several others the wages of civil servants are now below subsistence minimum. In the countries where the process of industrial restructuring is still underway, the wage share continued to drop even when after the recovery of output had started. To understand the extent of the phenomenon at hand it is worth reminding that in countries such as Armenia and Georgia, the wage share dropped way below 20 per cent (UNICEF 1995). Also in the case of Russia the drop in the wage and salary share in total income is startling (Table 8). In the countries of Central Europe the wage economy appears to have lost less ground though also in this case the wage share typically fell by between 10-15 percentage points (even this is likely an underestimate). This decline in the wage share has entailed large distributive implications.

Table 8. Structure of personal income by income types, Russia, 1990-95 (percentages)

	1990	1991	1992	1993	1994	1995
Wages	74.1	59.7	69.9	58.0	46.4	39.5
Trans.	13.0	15.5	14.0	17.2	17.4	16.7
Entr. Income	12.9*	24.8*	16.1*	24.8*	31.9	38.6
Cap. Inc.	*	*	*	*	4.3	5.2

Source: Goskomstat(1996);*included in entrepen. income

- **the share of transfers** (on account of pensions, unemployment benefits, family allowances and social assistance) does not follow a universal pattern. As seen in Table 6, this share shows an increase (or persistence at a fairly high level) in most countries of Central Europe, but widespread falls in the countries of the former Soviet Union and of South Eastern Europe. Much of these differences are not the result of endogenous factors (e.g. differential population structures) but reflect the 'structural social choices' of the policymakers. In several countries of the former Soviet Union, it is evident that the inability to sustain the volume of transfers is not so much the result of the choice of a 'neoliberal-residualist' welfare state, but rather of the inability-unwillingness to collect the taxes needed to finance an adequate level of transfers in a market economy. Evidence about transfers expenditure points, in fact. to a massive erosion of the real value of the benefits distributed to a large - and often increasing - number of beneficiaries.

- **the share of capital incomes** (dividends, interests, rents, financial rents and capital gains) in the total appears to have increased moderately in most countries. This conclusion is based on rather fragile evidence as HBS tend to grossly under-report these sources of income. Yet, the available evidence seem to point to an increase less marked than it would have been expected *a-priori*. While this might be in part the result of measurement problems, it could also be due to the slow pace of privatization, particularly of 'big privatization' (only Russia and the Czech Republic have divested a substantial share of SOEs), to the slow creation of joint-stock companies and to the slow development of the banking and financial sector (Table 9).

- finally, the **share of entrepreneurial incomes** has risen sharply with the informalization of the economy, the removal of barriers to entry and privatization. While also in this case measurement problems cloud the picture, in all countries the share of income from profits, self-employment and 'other incomes' has risen steadily, particularly in those countries - such as those of the Caucuses - where the wage economy and social transfers have collapsed. While little is known about the distribution of such incomes, it is likely that an increase in their share entails a rise in inequality.

Table 9. Extent of Privatization and Banking Reform as of 1994

Rank	Large-scale privatization [a]	Small-scale privatization [b]	Banking reform [c]
1	Albania, Armenia, Azerbaijan, Georgia, Ukraine	Azerbaijan	Armenia, Azerbaijan, Belarus, Georgia, Ukraine
2	Belarus, Bulgaria, Latvia, Moldova, Romania, Slovakia	Belarus, Bulgaria, Georgia, Moldova, Ukraine	Albania, Bulgaria, Lithuania, Moldova, Romania, Russia
3	Estonia, Hungary, Lithuania, Poland, Russia, Slovakia	Albania, Armenia, Latvia, Romania, Russia	Czech Rep., Estonia, Hungary, Latvia, Poland, Slovakia, Slovenia
4	Czech Rep.	Czech Rep., Estonia, Hungary, Lithuania, Poland, Slovakia, Slovenia	

***Source*: European Bank for Reconstruction and Development, *Transition Report*, October, 1994.**
***Notes*: a. Rankings: 1. Little done; 2. Advanced scheme ready for implementation, some sales completed; 3. More than 25 per cent of large-scale state-owned enterprise assets privatized or being sold, but with major unresolved issues regarding corporate governance; 4. More than 50 per cent of state-owned enterprise assets privatized in a scheme that reflects support for corporate governance. b. 1. Little done; 2. Substantial share privatized; 3. Nearly comprehensive programme implemented, but design or lack of central supervision leaves important issues unresolved; 4. Comprehensive and well-designed programme implemented. c. 1. Little progress beyond establishment of a two-tier system; 2. Interest rates significantly influencing the allocation of credit; 3. Substantial progress on bank recapitalization, bank auditing and establishment of a functioning prudential supervisory system; significant presence of private banks; full interest rate liberalization with little preferential access to cheap refinancing.**

5.3 Changes in the dispersion of the main income components.

- Changes in the distribution of capital and self employment income. Limited systematic information is available about the dispersion of capital, entrepreneurial and self-employment incomes. As noted, while these incomes are in principle included in the HBS, their values are often grossly mis-reported. Despite this likely bias, the information compiled below (Table 10) tends to support the view of a sharp rise in concentration in property incomes and of a more moderate one in self-employment income which, in any case is substantially less concentrated than the former. The shift in income concentration would likely be larger in the economies of the former Soviet Union, where the regulatory role of the state (to ensure, for instance, genuine market competition) is less developed. So, despite an apparently modest increase in the share of property and, to a lesser extent, of self-employment incomes, their contribution to overall inequality has been more than marginal in view of the rapid increase in the skewdness of their distribution.

Table 10. Concentration Coefficients of Property and Self-employment Income

	Self-employment	Property
Bulgaria 1992	55.7	33.8
Bulgaria 1993	53.2	74.4
Slovakia 1989	21.7	...
Slovakia 1993	28.6	...
Hungary 1989	28.5	35.5
Hungary 1993	28.9	67.5
Poland 1990	33.2	...
Poland 1993	41.8	78.6

Source: author's computations on the basis of the TRANSMONEE database (Nov. 1995 version)

- Changes in the distribution of gross earnings. There is unambiguous evidence that the dispersion of the distribution of gross earnings increased rapidly in the entire region over 1989-94 (Tables 11 and 12). Also in this case one can, however, observe two fairly distinct patterns. The increase was the greatest in Bulgaria, Russia, Lithuania and most other states of the former Soviet Union. In all these countries, earnings dispersion almost doubled and is now greater than in the Western market economies. In contrast, in Hungary (where wage inequality was already fairly high prior to the transition), the Czech Republic, Slovakia and the other countries of Central Europe the rise in earnings dispersion was more contained. In Hungary, the increase in the decile ratio (Table 12) was smaller than that in the Gini coefficient, thus suggesting that the changes have affected in particular the central classes of wage earners. Of the Central European countries, only Poland shows a large increase in dispersion and only in 1994.

Table 11. Gini coefficient of the distribution of gross monthly earnings, 1989-94

	1989	1990	1991	1992	1993	1994	Difference 89-94	through/peak
CSFR+	19.8	...	21.0	22.0	24.0	...	4.2	4.2
Hungary	26.8*	29.7	...	30.2	30.8	...	4.0	4.0
Poland	20.6	...	24.7	25.7	26.9	29.8	9.2	9.2
Romania	16.6	...	21.7	...	22.9	29.8	8.1#	8.1#
Slovakia+	...	...	...	...	...	...	...	...
Slovenia+	22.0	24.0	26.0	25.0	26.0	28.0	6.0	6.0
Armenia	25.9	...	31.1	36.4	35.1	...	9.2	10.3
Belarus	24.0	...	...	33.7	35.1	...	11.1	11.1
Bulgaria	...	21.0	24.0		28.0	...	7.0	7.0
Estonia	...	...	...	...	...	...		
Lithuania	26.0	...	...	...	...	35.0	9.0	9.0
Moldova	26.4	...	...	40.0	...	38.5	12.1	14.4
Russia	27.3	26.5	33.5	37.5	46.4	...	19.1	19.9
Ukraine	24.1	...	23.1	25.6	35.4	44.6	20.5	21.4

Source: * 1988;+ UNICEF (1995);# the comparison is done using as a base year 1991 rather than 1989 as data for that year are not directly comparable.

The first explanation of this increase in earnings dispersion has to do with the liberalization of wage negotiations. With the progressive liberalization of wage determination, a new pattern of job remuneration more closely linked to skill levels has emerged. In some cases, job demand for 'new' skills (computer specialists, accountants, people with knowledge of foreign languages, bankers, etc.) has not always found an adequate supply of skilled workers, thus leading to over-remuneration. **Returns to education** appear to have, indeed, risen. Vecernik (1994) found that in the Czech Republic the rate of return to one additional year of education has, on average, risen from 3.5 per cent to 6.2 per cent. A World Bank (1994) study on Poland found the increase to be from 6.4 per cent in 1989 to 7.5 per cent in 1992. In contrast, **returns to experience** were found to be declining in East Germany, the Czech Republic, Poland and Slovakia (but not in Slovenia), as the experience acquired during the previous regime became less valuable during under the new market conditions (Milanovic 1995).

Table 12. Decile ratio of the distribution of gross monthly earnings, 1989-94

	1989	1990	1991	1992	1993	1994	Difference 89-94	Difference through-peak
Czech R.	...	...	...	...	...	...	...	...
Hungary	...	3.51	...	3.60	3.72	...	0.21	0.21
Poland	2.44	...	2.80	2.90	3.04	3.38	0.94	0.94
Romania	1.99	...	2.44	...	2.64	3.49	1.05#	1.05#
Slovakia	...	...	...	...	...	...	...	...
Slovenia	...	...	...	...	...	...	...	...
Armenia	3.20	...	3.68	4.43	5.23	...	2.03	2.03
Belarus	3.03	...	...	5.28	6.00	...	2.97	2.97
Bulgaria	...	...	...	...	...	...	...	...
Estonia	...	...	...	...	...	...	...	...
Lithuania	...	...	...	...	...	...	...	...
Moldova	3.34	...	...	7.21	...	6.03	2.69	2.69
Russia	3.40	3.44	4.38	7.62	14.86	...	11.46	11.46
Ukraine	2.86	...	2.70	3.14	5.31	8.04	5.18	5.34

Source: TRANSMONEE database (Nov. 1995 version);# 1991 is used instead of 1989

However, it would appear that more than by skill level, **wage dispersion has increased across industries**. Russia, Romania, Slovakia and most other transitional economies of Eastern Europe underwent some of the sharpest rises of inter-industry wage dispersion in the region. Which industrial sectors have gained? And what are the reasons for this increased inter-industrial wage inequality? The case of Russia is characteristic, illustrating a pattern which has been observed throughout most of the region (Table 13). The sectors that have gained relative to the average are mining and extraction, power generation, water and gas, banking, finance and insurance. On the other hand, sectors depending on state budgets, like health, education, research and culture have suffered quite significantly from this increase in wage dispersion. Wages in the agricultural sector also have slipped significantly.

Table 13. Average Wage by Sector in Relation to the National Average Wage, Russia, 1990-95.

	1990	1991	1992	1993	1994	1995*
average	100	100	100	100	100	100
industry	103	111	118	108	104	111
agriculture	95	84	66	61	50	43
construction	124	127	134	133	129	131
transport	115	120	146	151	150	152
commerce	85	91	91	107	123	117
health care, sports, social insurance	67	76	66	76	76	84
education	67	71	61	68	69	77
culture & arts	62	67	52	62	62	67
science, R&D	113	90	64	68	78	78
credit, finance & insurance	135	180	204	243	208	..
government ministries	120	99	94	115	117	119
public utilities	74	80	82	92	96	110

***figures for November**
source: Goskomstat 1995 and 1996

It might seem that the most probable explanation for this widening gap should be greater productivity differentials across sectors or the result of a shift to international market prices. This, however, appears to account for only part of the phenomenon. In Romania, for instance, the extraction and electrical industries have shown wage increases proportionally greater than the increases in productivity (Zamfir 1995). First, the monopolistic nature of some sectors or their ability to exert political pressure has been decisive in pushing up wages. This is particularly true for strategic industries, such as the military industry or vital sectors such as mining and electrical energy. Workers have much less sway in the agricultural or manufacturing sectors, where competition is growing tougher due to privatization, industrial rationalization and import liberalization, and where the risk of lay-offs is much greater than in other industries. Second, all the main state ministries (education, health, research) have been affected by the limited success in tax collection and the ensuing budgetary difficulties of the last few years; furthermore, wages in these sectors are generally anchored to the minimum wage, which, as noted, has been left to fall significantly in respect to the average wage. And finally, the relative wage increases in the areas of finance and banking reflect the growing importance of these sectors in the market economy and, as opposed to all other sectors, the significant gains in productivity resulting from the restructuring processes.

By and large, real wages in the 'strong sectors' (transport, oil extraction, energy, banking and so on), stopped declining in 1993 and have often increased in real terms in 1994 and 1995. In contrast, wages in agriculture and, in particular, in public social services (health, education, child care, social assistance, etc.) and agriculture have continued their decline (Table 13). As a result, about a third of all wage earners in 1993 had a wage below or around 50 per cent of the average wage, the lowest ratio of all countries in transition for which information is regularly compiled (UNICEF 1994).

Overall wage dispersion, particularly in the states part of the FSU has also been influenced by the policy towards minimum wages. The latter have indeed experienced a generalized fall in relation to the average wage (Standing and Vaughan-Whitehead 1995). Indeed, the countries experiencing the largest increases in wage dispersion are generally the same ones in which the minimum wage has fallen most relative to the average wage (Table 14). Except in Poland, where the **minimum wage** rose substantially from the artificially low 1989 level, and in Hungary and Slovenia, where the ratio of minimum to average wage rose moderately from a fairly high level, minimum wages fell in all countries by between 30 and 60 per cent in relation to the wage rate. The sharpest falls were recorded in Armenia, Belarus, Moldova and Russia.

Table 14. Minimum Wage as a Proportion of the Average Wage in Selected Countries, 1993

MINIMUM WAGE / AVERAGE WAGE RATIO

	1989	1990	1991	1992	1993	1994	Difference 1989-94	Difference between max/min
Czech Republic	..	..	52.8	45.9	37.8	33.3	-19.5	19.5
Slovakia	..	61.0	58.2	54.7	46.5	39.8	-21.2	21.2
Hungary	44.6	48.7	51.9	51.3	48.5	..	3.9	7.3
Poland	11.6	21.4	34.9	37.5	41.0	40.4	28.8	29.4
Slovenia	24.2	37.9	39.1	35.2	32.3	29.0	4.8	14.9
Albania	68.0	66.0	65.0	40.0	27.2	50.0	-18.0	40.8
Bulgaria	51.1	45.7	68.0	41.5	38.2	36.7	-14.4	31.3
Romania	65.3	59.1	61.6	45.8	37.2	..	-28.1	28.1
Latvia	..	..	37.4	25.6	24.1	28.5	-8.9	13.3
Lithuania	31.5	26.6	38.6	33.1	25.6	22.8	-8.7	15.8
Belarus	30.3	26.1	21.3	19.4	14.1	9.1	-21.2	21.2
Moldova	35.0	30.0	31.0	25.0	23.0	15.0	-20.0	20.0
Russia	26.6	23.6	25.3	11.8	10.1	8.3	-18.3	18.3
Ukraine	32.2	28.1	42.6	..	..	..	10.4	14.5
Armenia	36.4	33.2	39.0	46.6	36.4	10.4	-26.0	36.2
Azerbaijan	66.1	67.7	71.4	54.7	36.3	42.3	-23.8	35.1
Georgia	35.6	31.0	41.4	36.8	26.6	..	-9.0	14.8

Source: UNICEF (1995)

Finally, overall earnings dispersion has also been influenced by the tax-based income policy adopted - generally for macroeconomic reasons - in several transitional economies. According to this policy, many workers who have *de facto* been laid off are kept on the books because of the tax benefits available to firms which maintain low average wages. The 'excess wage tax', calculated on the average wage paid out by a firm, provides a substantial incentive to firms to keep unneeded workers on extremely low (or zero) salary, rather than laying them off, so as to keep down their total per capita wage bill (Shapiro and Roxburgh 1994).

- **Changes in the distribution of transfers.** As noted earlier, in Eastern Europe the transfer and tax system played a more limited equilizing role than in the western market economies. In a sense, a thorough reform of the transfer and tax system could have mitigated the increase in inequality due to the endogenous effects of the reform. The information compiled below in Table 15 indicates that such opportunity has been used to a moderate extent in Hungary and Poland (but not in Bulgaria) in the case of social assistance transfers. The same arguments holds for family allowances which are moderately progressive and whose targeting has generally improved during the reforms. As noted above, however, these improvements remain well below those that can be achieved under 'best practice conditions'. In contrast, the move to a new pension regime is having a considerable positive influence on income inequality, as indicated in both the case of Hungary and - particularly - of Poland.

Table 15. Changes in concentration coefficients of social transfers

	Social Assistance Unem.Ben.& Sick Pay	Pensions	Family Allowances
Bulgaria 1992	6.1	...	- 4.1
Bulgaria 1993	10.6	...	- 5.0
Slovakia 1989	10.8	...	-21.9
Slovakia 1993	...	17.7	-25.1
Hungary 1989	19.8	7.7	-13.4
Hungary 1993	-11.3	19.9	-15.2
Poland 1990	14.7	13.7	-16.2
Poland 1993	- 8.6	33.6	-11.8

Source: author's computations on the basis of the TRANSMONEE database (Nov. 1995 version).

6. CONCLUSIONS: A COMPARISON OF EXPECTED VS REAL SOURCES OF INEQUALITY RISES

Six years after the onset of the transition, there is unambiguous evidence that income inequality has risen throughout Eastern Europe. While an increase in income differential was one of the objectives of the reforms, it is generally perceived that, in several countries, such increase has gone too far, and that economic efficiency and social stability could be hampered by this unexpected trend.

The surge in inequality has followed two rather distinct sub-regional patterns, juxtaposing Central Europe to Southern Eastern Europe and the countries of the former Soviet Union (Poland and Romania are borderline cases). Central Europe has broadly 'caught up' with the levels of inequality observed in the medium-inequality economies of the OECD. However, there are reasons to suggest that the present levels of inequality will rise further: the increase started only recently (around 1992), privatization and industrial restructuring are only now taking effect and are expected to continue for another decade, the financial sector is only now beginning to develop, and social transfers are likely to stagnate or fall owing to mounting fiscal pressures (this effect could, however, be offset by better transfer targeting). This 'catching up' may thus soon turn into a full-fledged 'overtaking'.

In the countries of the former Soviet Union, the increase in inequality has been much greater than in Central Europe and may prove dysfunctional to long-term growth. As noted by Doyle (1993, p.19, cited in McAuley 1994) "... Russia has experienced a widening of its income distribution over one year equivalent in scale to that which occurred in the UK over ten years". Also in this case, the rise in inequality is likely not to have - as yet - fully stabilized. In the absence of countervailing (and, at the moment, unlikely) policy measures, the sub-region is likely to 'catch-up' with the high-inequality economies of Latin America.

The analysis in the previous sections indicates that received economic theory only partially explains this larger-than-expected increase in inequality. Indeed, the paper argues that in many cases the sources of the increase in inequality differ from those pointed out ex-ante by most observers. The ex-ante prediction based on prevailing economic theory focused on the **endogenous disequalizing effects** of market reforms, due in particular to rising returns to human capital, the privatization of profits and capital incomes and removal of subsidies on wage goods. This upward pressure on inequality was to be mitigated in part by the reform and better targeting of the tax and transfer system. While some of these changes have occurred, the paper has argued that other unexpected changes have had an even greater impact on inequality. Among them:

- **macroeconomic effects;** the recessionary approach to the transition followed in most countries of the region depressed substantially the 'wage share' in total income. In addition, the 'big-bang' approach to price liberalization generated inflationary pressures much larger than anticipated. These demanded, in turn, the introduction of income policies that heavily relied on the nominal wage as a major anchor of the stabilization programmes, thus depressing further the wage share in total income;

- **policy effects:** while there is some evidence of increasing returns to labour, three important policy-factors have contributed to the surge in earnings inequality: first, the abandonment of any meaningful policy in the field of minimum wages (in several countries); the downward flotation of the wages in the public social sector (relative to the rest of the economy); and the inability to contain wage increases in those monopolistic-rent sector, where real wage increases have seldom been accompanied by increases in labour or total factors productivity.

The impact of changes in transfer policy also appear to have been different than anticipated. To start with, in the economies of Central Europe, social transfers have not fallen as dramatically as it was predicted by the 'retreat of the state' theory. The endurance of the welfare state in Central Europe certainly helped containing the surge of inequality over the short-term. Welfare benefits, in contrast, fell sharply in the rest of Eastern Europe. In addition, while transfers for family allowances, unemployment compensation and social assistance seem to have become better targeted (though at a slower pace than desirable), the shift to a market-based pensions system has sharply reduced the progressivity of this key transfers and contributed to an acutization of the endogenous shifts towards inequality;

- **slower than anticipated endogenous disequalizing impact**: in most cases, the impact of privatization on income concentration has been less pronounced than anticipated. Except in the case of 'give-away' or 'insider' privatization (as in the Czech Republic or Russia), privatization has proceeded less rapidly than anticipated. While these changes will affect profoundly the long-term distribution of income, their medium term impact has been contained by the slow development of financial and banking institutions and the privatization of state-owned industries.

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