Income Distribution and Convergence in the Transition Process

the Transition Process

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A Cross Country Comparison

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Abstract

The aim of this study is to clarify, whether and where the widespread opinion that systemic change from socialism to capitalism went along with dramatically rising inequality is true and how income distribution does affect the overall growth performance of transition countries. The countries under review are: the Czech Republic, Hungary, Poland, and Russia. The findings are analysed against the background of convergence or divergence respectively vis-à-vis the European Union (EU) level of income and income distribution. Here Germany, being the neighbouring country and biggest EU economy, is taken as benchmark.

For the Czech Republic, Hungary and Poland it can be shown that income distribution remained relatively stable before and throughout the transition period on the basis of so far unpublished data from the Luxemburg Income Study database. Russia however displays a sharp increase in income distribution. These results are illustrated by Lorenz curves and underpinned by developments in functional income distribution and social transfers. An attempt is made to locate these transition countries on a stylised Kuznets curve and further qualitative factors referring to growth and equality are considered.

Income Distribution and Convergence in the Transition Process

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Jens Hölscher[*]

1. Introduction

Income distribution has dramatically changed during transition from planned to market economies, the saga goes. The aim of this study is to clarify, whether and where this statement is true and how income distribution does affect the overall growth performance of transition countries. There is a vast amount of literature on real and nominal convergence of the new European Union (EU) member countries to "old" EU member countries' standards[1], but little is known about the behaviour of income distribution. Is the dramatic increase in income inequality overshooting EU levels or will there be a convergence in the sense of assimilation to EU levels? The countries under review are: the Czech Republic, Hungary, Poland as the most important new EU member economies and Russia in order to have a comparison with a non-EU accession country. The findings are analysed against the background of convergence or divergence respectively vis-à-vis the EU level of income and income distribution. Here Germany, being the neighbouring country and biggest EU economy, is taken as benchmark[2].

In the field of income inequality research Tthe current state of the art in income inequality research can be summarised as the "Transatlantic Consensus", which explains inequality through a partial analysis approach with changes on the labour market at its core. This approach and its explanatory value for transition economies will be critically discussed from a macroeconomic point of view. The potential interrelationship between inequality and growth is particularly important for transition countries, because, according to conventional wisdom, these countries have experienced in this case systemic change went along with rising inequality and declining GDP. in the initial phase.

For the Czech Republic, Hungary and Poland it can be shown that income distribution remained relatively stable before and throughout the transition period on the basis of so far unpublished data from the Luxemburg Income Study database. Russia, however,

[1] See Yigit/Kutan 2004 for an analytical review on the impact of European integration on convergence using advanced comparison techniques.

[2] Further reasons for the choice of this particular set of countries are give later in more detail.

displays a sharp increase in inequality.~~come distribution.~~ These results are illustrated by Lorenz curves and underpinned by developments in functional income distribution.

The paper is structured as follows: The next section summarises the standard explanation of rising inequality, which is a microeconomic approach in a partial analytical framework. Its application to transition economies is briefly presented. The third section reflects upon macroeconomic issues related to the distribution of income. Various approaches are discussed in this context. The fourth section presents an empirical analysis of the Czech Republic, Hungary, Poland and Russia. It is organised in the sequence of general income development, personal income distribution and functional income distribution plus transfers. The fifth section reconsiders the performance of each country and gives hypothetical explanations. The conclusion puts the countries under review into the context of convergence and divergence.

2. The "standard explanation" of rising inequality and its application to transition economies

The "standard explanation" of rising income inequality relates income inequality to the labour market. According to this explanation, which Atkinson (2000) calls 'Transatlantic Consensus', rising *wage inequality* is the key of conceptualising rising income inequality in general. After a long period of lack of interest in the issue of income distribution, epitomised by Henry Aaron, who noted in 1978 (see Gottshalk/Smeeding for the following) that tracking changes in the distribution of income in the United States "was like watching the grass grow" a new interest emerged. Since the early eighties rising wage dispersion in the US labour market could be observed. Empirical studies ~~could~~ show that these changes in earnings lead to rising inequality of household incomes. A similar observation could be made in the United Kingdom and continental Europe, although on the European mainland rising inequality went along with increasing unemployment.

The mechanics of the 'Transatlantic Consensus' are as follows: A shift in relative demand from unskilled to skilled workers leads to higher wages dispersion, because the wage premium increases in favour of those who are employed in the skilled labour sector. As wages for workers in the unskilled labour sectors correspondingly fall relatively, the overall inequality in earnings has widened. The channel of this explanation to the European continent (in particular France) is that effective minimum wage protection leads to higher unemployment rather then decreasing wages for ~~the~~ unskilled workers. Although there is widespread agreement ~~up~~on the mechanics of rising inequality, the reasons for the shift away from unskilled to skilled workers are disputed. Globalisation and technology changes are most prominently featured and refer to the increase in international trade and the advent of electronic commerce. Whatever the reasons for the shift *per se* are, for the purpose of this analysis it seems noteworthy

that the mechanics of this partial analytical "standard explanation" are robust enough to create the 'Transatlantic Consensus' ~~within the academic community~~.

Th~~ese mechanics are~~is analysis has been extended to the transition economies of Eastern Europe and further East by Milanovic (2000). He has written ~~, who produced~~ the most authoritative empirical overview ~~in that field~~ so far, Milanovic (1998). He defines the ~~T~~transition from planned to market economies ~~is defined~~ as "the removal of legal restrictions on the private sector"[3]. For the pre transition scenario it is assumed that the majority of workers were employed in the state sector and that income there was distributed more equally - albeit on a lower level - than in the private sector[4]. Within this set-up the same mechanics as in the 'Transatlantic Consensus' operate: Parallel to the demand-shift-story of Western industrialised countries, in the transition countries a shift from ~~the~~ state sector employment to ~~the~~ private sector employment ~~of the labour market~~ explains rising inequality in earnings and finally rising general inequality. Again, the robustness of the partial analytical approach is striking. We will return to the explanatory power of the approach for economics of transition after the consideration of macroeconomic aspects of income distribution in the following section.

3.   Macroeconomic aspects of income distribution

~~First of all f~~From a macroeconomic point of view the labour market explanation for inequality can only be part of the story, because there are more sources of income than wages. In the tradition of David Ricardo a distinction would have to be made between transfers (rent in Ricardo's terminology), profits and wages. The focus of interest in macroeconomics is the functional distribution of income rather than the personal distribution. Traditionally functional income distribution is conjunct with "laws" of economic development. For example Ricardo created his hypothesis of stagnation of capitalist development on the basis of his assumption that finally production would be for the benefit of the rent recipient (the landlord) only. His pupil Marx however concluded the breakdown of capitalism; because profit shares of income would increase that much that the exploited working class would overthrow the whole capitalist system. In modern approaches rising inequality would be limited by a poverty line, below which macroeconomic stability would be jeopardised by political unrest.

~~In the 20th century research into income equality is affiliated with the work of Simon~~ Kuznets'~~, whose~~ seminal work on the relationship of economic growth and income inequality asked the following ~~were path breaking. His research-leading~~ question "Does inequality in the distribution of income increase or decrease in the course of a country's

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[3] The shortcomings of such an unusual definition of 'transition' will become evident later in the course of this study. At this stage it is accepted for the sake of the Milanovic's argument.

[4] We have some reservations concerning the empirical validity of this assumption, as there are pockets of very low wages in services industries of the private sector. For the sake of the model this aspect is not pursued here further.

economic growth?" (1955, p. 1)~~. will be taken up again later in this study.~~ He ~~himself~~ focused on long run developments including sectoral changes from agricultural to industrial production and the emergence of services. His observation~~s~~ lead to ~~that initially inequality rises with growing GDP per head in a country and after a maximum in inequality is reached decreases again, was sketched in~~ the so-called Kuznets-curve~~. by his successors.~~ The Kuznets curve has an inverted U-shape and its message is ~~interpreted in the way~~ that rising inequality is growth supporting initially, but after reaching a ~~a~~ certain maximum of inequality ~~referring to a certain income per head is reached~~, rising equality would be growth supporting.

Compared to Kuznets, who always stressed, that "… distribution should be complete, i.e. should cover all units in a country …" (1955, p. 1) the ~~probably~~ most obvious weakness of the labour market explanation of income inequality with~~in~~ the 'Transatlantic Consensus' is that it neglects unemployment to the extent that ~~as far as~~ it can not be explained by minimum wages. ~~If faced with a scenario of~~ It has little to say about non-voluntary unemployment. ~~, this approach has very little to say, as the "unit" of the unemployed is left out.~~This is an important ~~not as trivial as it seems, because it points to the~~ methodological limitation~~. of the partial analytical approach.~~ Either the focus is the labour market or it is not. There is little room for heterogeneity of labour beyond skilled and unskilled. A macroeconomic approach would look at the aggregate demand for labour and its effect on labour markets and income creation. At the end of the chain one would expect some effect on income equality, which might indeed to a certain exten~~t~~d be related to changes in earnings, i. e. the labour market, but would take further sources into account.

Also, the macroeconomic approach would have to emphasise that a demand-shift story within the labour market like the 'Transatlantic Consensus' suffers from any reaction of the stock of human capital. At least in the longer run economic intuition would have to assume that workers would make endeavours to move from the sector of unskilled labour into the sector of skilled labour by investment in~~to~~ education. This is a general macroeconomic aspect to the partial analysis, which is particularly relevant for transition countries. ~~As far as labour skills are concerned it can be assumed and is described in a number of studies (see for example EBRD 1999, Keane/Prasad 2000)~~ In the ~~that through the~~ rapidly changing environment for work during transition old labour human capital skills were devalued (much like ~~and the stock of human capital underwent a similar experience as the stock of~~ the physical capital stock) (See for example EBRD 1999, Keane/Prasad 2000).

At the end of the 20th century the general question of interrelationship between the level of income per head/household and the distribution of income is taken up again, this time by neoclassical growth theory. Barro (2000) ~~states~~provides evidence that higher inequality tends to retard growth in poor countries and encourage growth in wealthier countries. ~~richer places.~~ His broad panel of countries does, however, show little overall relation between income inequality and rates of growth and investment. Transition

economies are not included, as ~~within the framework of a growth model~~ the period is presumably too short. The threshold between poor countries, where growth tends to fall with greater inequality and rich countries, where growth rises with increasing inequality is found "around \$2000 (1985 U. S. dollars)" per capita GDP (Barro 2000, p. 32). ~~From an analytical point of view it seems to be of interest that t~~This new approach to income distribution confirms the old view on income distribution, because "The Kuznets curve – whereby inequality first increases and later decreases in the process of economic development – emerges as a clear empirical regularity." (Barro 2000, p. 32).

Growth in transition appears to be a more complex phenomenon.~~; first of all b~~Because the time span is relatively short, ~~what makes~~ it is almost impossible to make a distinct~~ion~~ between short term and medium term effects. Here following Campos/Coricelli (2002) the term "growth" is ~~used in a more literal sense~~ refer~~s~~ring to the short or medium term.~~ respectively. This is an important implication, which might make it very difficult to say anything about "growth" and "income distribution" in transition countries at all.~~ The following section looks at what can be observed and whether or not Barrow's statement above applies for transition economies, too.

4.   The observations

This section presents empirical findings on general, personal and functional (plus transfers) income dynamics and income distribution. Data on income distribution are obtained from LIS (Luxemburg Income Study Database), which is considered to be ~~being~~ the most thoroughly validated dataset of ~~based on~~ household survey data~~microcensi~~. Data on functional income distribution plus transfers were obtained from the national statistical offices. The empirical approach differs in so far from the Milanovic study quoted earlier, as it is income based rather than earnings based.~~As laid out on theoretical grounds, t~~ This approach does provide a ~~reflect a~~ more complete picture ~~taking into account aspects of macroeconomics~~ of income distribution changes. ~~. Therefore it is no surprise that different results will be elaborated.~~

~~As a set of countries t~~The Czech Republic, Hungary, Poland and the Russia were chosen because ~~. The first~~these three countries are the economic "heavy weights" in terms of GDP among ~~of those~~the transition countries, which recently joined the European Union. Russia is chosen as the "heavy weight" of economic transition that does not have EU candidate status. A further pragmatic reason lies in the fact that relative reliable data (although not always complete, see for example Russia) in income distribution were available, which is not the case for South East European countries and most of the former Soviet Union countries. ~~In addition there is a peculiar interest on how income distribution might develop in comparison to the big debate of income (as GDP per head) convergence or divergence.~~

4.1. General income development

As an introduction to income dynamics this sub-section looks at ~~income creation within the sample of countries measured in~~ real GDP growth. Here we find a picture of convergence and divergence to EU levels.
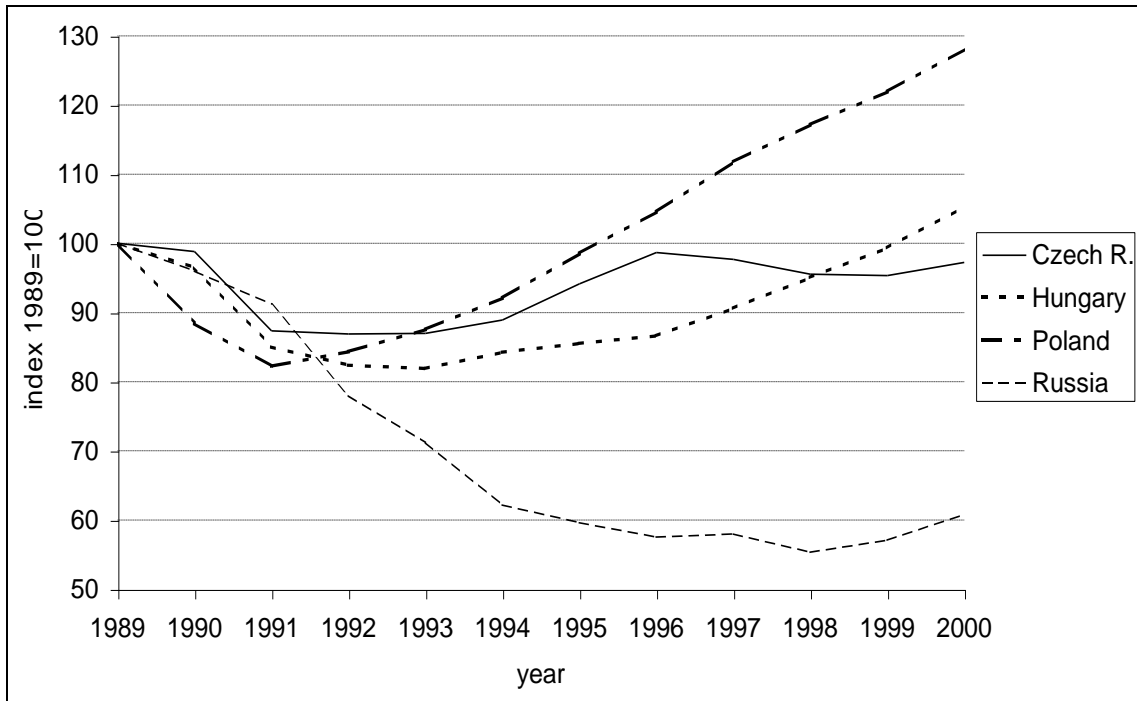

Figure 1[5].   Development of real GDP during Systemic Transition, 1989-2000

Figure 1 shows the development of real GDP in the Czech Republic, Hungary, Poland and Russia measured with 1989 as basis year. We find the so-called J-curve of transformation (see also Hölscher 1999a) in the case of Hungary and Poland, but a picture of recession and stagnation in the Czech Republic and long lasting recession in Russia, which only recently turned into considerable growth rates. For Hungary and Poland the J-curves show an upswing after the first years of "transformation recession" and an economic recovery displaying higher levels of GDP in the longer run than before transition began. The Czech picture is characterised by stagnation after a short recovery from the early recession and even further recession after 1997, the year of the Czech banking and balance of payments crisis. The same year marks the lowest level of GDP in Russia, which coincided with the Rouble crisis. Interpretation of this graph has to be careful, because the choice of the basis year is crucial and serious reservations about the comparability of data across the transition period are appropriate. However, this method has been used ~~customised~~ by various institutions (including Worldbank, EBRD etc.) and due to comparability with other studies the approach is maintained here. In this study the

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[5] It should be noted that this style of indexed presentation is chosen for the purpose to compare the performance of the countries under review in this study. I t does not say anything about the absolute level of income. Real GDP per head in the benchmark country Germany is 2-3 times higher.

research ~~leading~~ question is how far th~~is~~ise general economic performance can be related to the distribution of income.

4.2. Personal ~~income distribution~~ and ~~F~~functional income distribution~~(plus transferss)~~

The analysis of personal income distribution is base on household surveys carried out through ~~microcensi~~ household surveys by the authorities in the relevant countries validated by LIS[6]. Household income potentially includes every income source from the functional income distribution; i. e. a household might receive wages, profits as well as transfers. Although the microcensus varies from country to country, they are ~~it is trusted the~~ validated~~ation~~ by LIS to ensure ~~does secure~~ comparability.

This analysis uses the Gini coefficient as empirical measure of income inequality. The Gini coefficient is derived from the cumulative distribution of earnings across the population as per capita incomes. It is defined as one half of the mean difference between any two observations in the earnings distribution divided by average earnings. The higher the Gini coefficient, the higher is inequity within a society. One familiar interpretation of the Gini coefficient is the Lorenz curve, which graphs cumulated income shares versus cumulat~~ed~~ive population shares. Population is ordered from low to high incomes. In this context, the Gini coefficient can be computed as twice the area between the 45-degree line that extends northeastwardly from the origin and the Lorenz curve. The 45-degree line represents equal income distribution across the population and the larger the distance of the Lorenz curve to the equal distribution line the greater is income inequality.

The Lorenz curve for Germany in 1998 is taken as benchmark. The reason for choosing Germany 1998 is first of all that it follows conventional research practice in using former West-Germany as benchmark for Ex-East-Germany in almost any economic respect, including income distribution. More important ~~for this choice~~ is that ~~however that~~ the former West-Germany is regarded as a proxy for West European income distribution reflecting a social market economy expressed inter alia in an income distribution being much more equal than ~~for example~~ the UK but less equal ~~so~~ than ~~for example~~ the Scandinavian countries[7]. The year 1989 is for Germany not problematic as in West-Germany income equality was very stable over the years.

Tables 1-3 in the appendix give more detailed information of what is illustrated and briefly discussed her by Lorenz curves. Table one shows the ~~c~~cumulat~~ed~~ive personal income distribution of selected countries and years and in comparison to Germany 1998

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[6] A previous version of this study has been published in 2002 as Luxembourg Income Study Working Paper No. 275.

[7] In the transition literature the distance from Düsseldorf is used in a similar fashion as a proxy for distance from Western European Markets (see Campos/Coricelli 2002).

(per household) in per cent cumulated quintile shares and the change vis-à-vis Germany as benchmark. Table two displays changes of personal income distribution of selected countries between selected years (per household) in per cent change rates in quintile shares. Table three shows the ddistribution of household income according to decile shares (per household), in per cent.

Functional income distribution is presented ~~observed~~ here for two reasons: (1) ~~Firstly~~ to capture macroeconomic aspects of income distribution as outlined in Ssection 3~~three of this study~~ and (2) ~~secondly~~ to give a picture of the sources of incomes for the following subsection on personal income. The aim is also to provide evidence for an analysis of ~~referring to the~~ overall the economic performance~~s of the countries under review allowing some considerations referring~~ and ~~to~~ the interrelationship between profits and investment. In addition an attempt will be made to relate changes in personal income distribution to changes in functional income distribution, transfers and other factors. As there are methodological problems in ~~reservations for~~ cross-country comparisons of profit ratios etc. due to different national definitions and tax systems emphasis here is placed ~~laid~~ on change rather than absolute size, and no benchmark country is chosen.

4.2.1   The Czech Republic

The Lorenz curve for the Czech Republic shows an increase in inequality from 1988 to 1992, which developed on the expense of the lower decile share, whereas the higher deciles remained more or less unchanged. This is also the year of intersection with the German Lorenz curve with the intersection point within the middle classes. This can be read in the way that initial transition recession lead to a higher share of the poor than in the benchmark country Germany, but a higher share of the rich deciles as proportion of national income. This is supported by the picture to be discussed in the functional
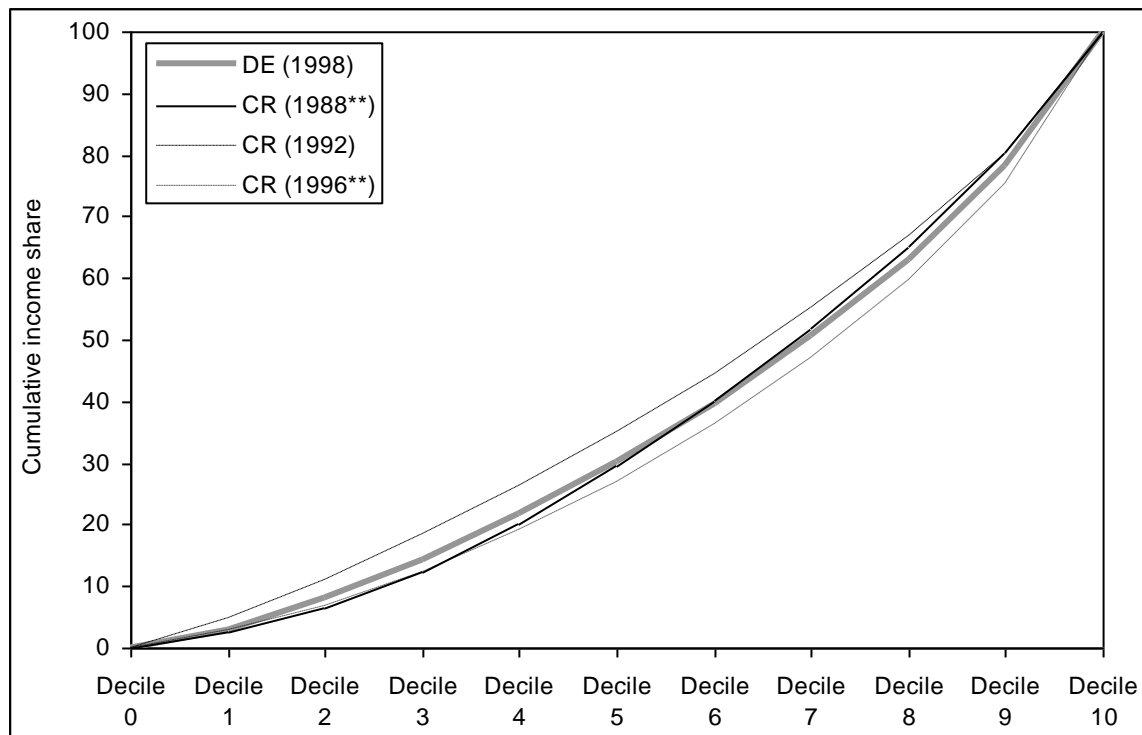
Figure 2.1.   Personal income distribution, The Czech Republic 1988, 1992 and 1996

distribution, where the transition recession ~~went along with~~ created rising shares of profits and declining wages (see figure 2.2.). The third Lorenz curve of 1996 lies slightly below the benchmark indicating that the income distribution is a bit more unequal in the Czech Republic, but well in the range of its neighbouring country in the West. Also it is notable that there was no sharp change in equality, but a rather moderate and gradual development.

~~With regards to the~~In F~~f~~igure 2.2. it should ~~has to~~ be noted, that there is a statistical break in reporting by the Czech Statistical office after 1991. "Business and others" is replaced by "operating surplus" and other categories were changed as well. ~~(see below) due to the systemic break.~~ Nevertheless it seems to be remarkable that the share of profits grew in the beginning of transition only to fall sharply in later ~~the~~ years. ~~after.~~ The dramatic rise of the profit share in the crisis year 1991 reflects the realisation of quasi-rents during initial transition. The coincidence between sharply rising profit shares and crisis in general income development is notable. The adjustment followed one year later, when profit shares fell as the consequence of falling investment in the previous year. Profit ratios (share of operating profits) increased slightly in 1993, but then remained stable until the 1997 crisis. The same observation holds for the wages ratios (labour compensation). Even property income shows moderate changes only. ~~A careful interpretation could just state that a~~An increased share of profits went along with positive growth rates from 1994 to 1996. ~~The overall observation consists~~ What is

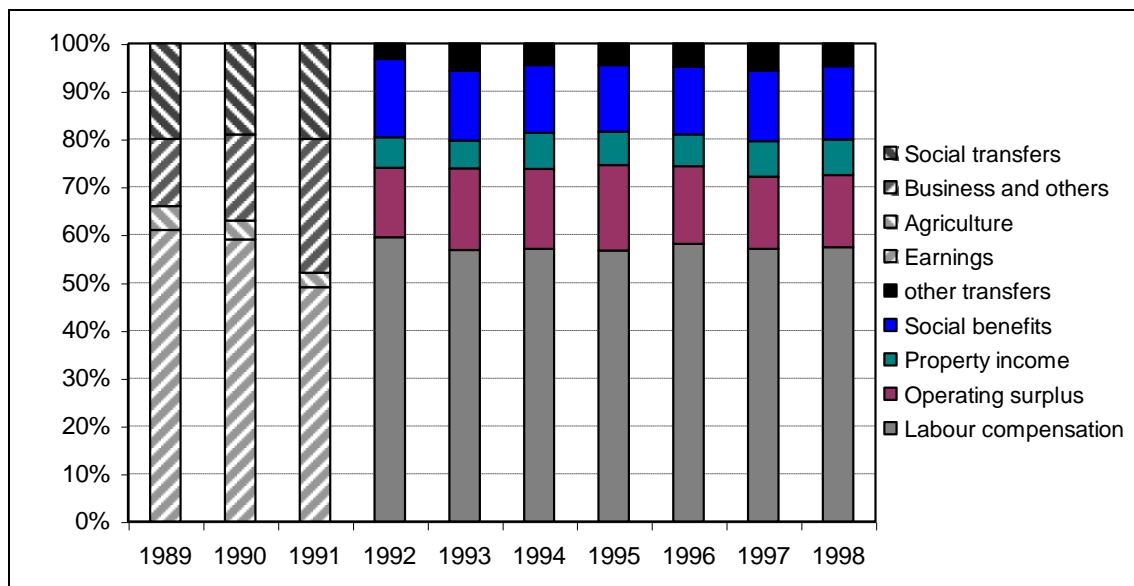apparent is ~~in~~ the stability of the functional income distribution over the transformation period.

Figure 2.2. Functional income distribution and transfers, in per cent of national income, Czech Republic 1989-1998

4.2.2 Hungary

For Hungary LIS has only two datasets, but ~~yet~~ again the message is clear. In socialist times the degree of inequality was nearly identical with the benchmark country, though on a far lower level. Inequality increased from 1991 to 1994, mainly for the benefit of the upper middle classes, whereas the proportion of the lower deciles remained stable. Like in the Czech Republic this move followed a rather modest and gradual path rather than displaying a dramatic jump in inequality.
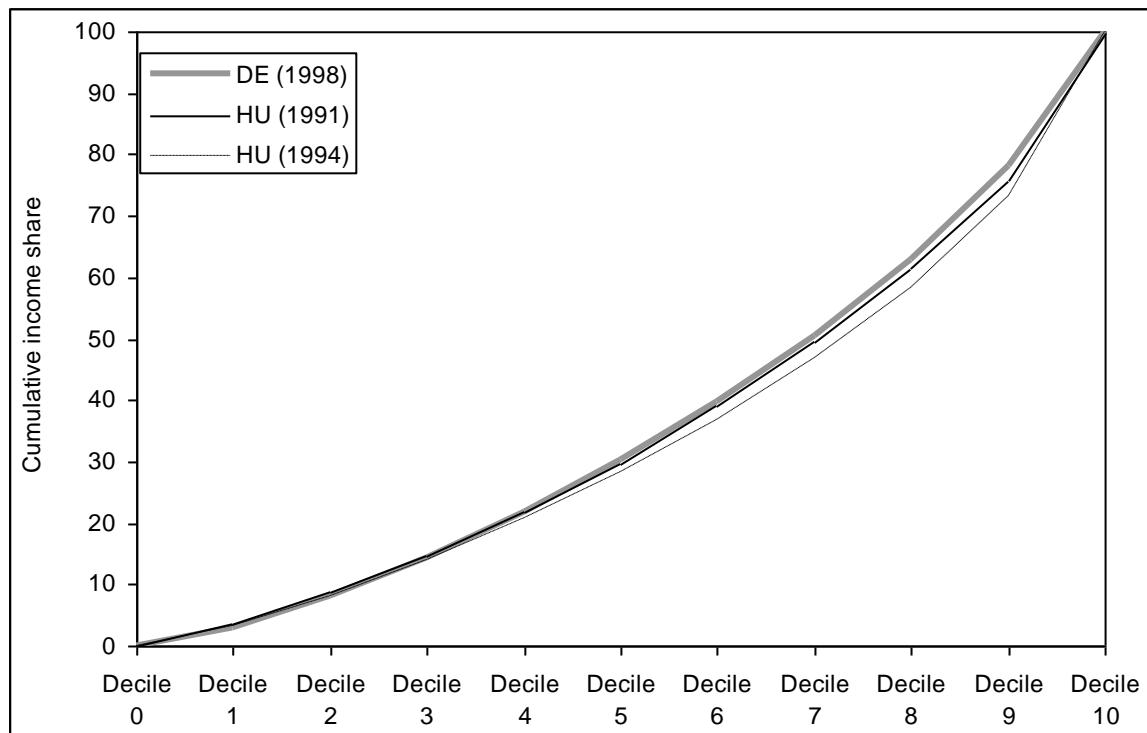
Figure 2.3.   Personal income distribution, Hungary 1991 and 1994

For Hungary the functional income distribution also shows a jump in~~of~~ the profit share in the beginning of transformation as~~like~~ in the Czech Republic albeit one year later, in 1992. An interesting detail is that property income doubled even one year before and decreased to its normal level near 5%~~five per cent~~ the year after. It is surprising that this type of income was recorded in socialist times and we may suspect that property owners made a fortune in the initial year of transition. Social transfers plummeted after the end of communism, but the wage ratio rose ~~increased up to~~ above 60%~~sixty per cent~~ in the years 1992-1994. The proportions between wages and profits change in 1995, the year of the austerity programme in Hungary. In that year the profit share grew to more than twenty per cent and remained on that level until today. Wages account for around 60 per cent. Social transfers were reduced as well and remained around ten per cent from 1996 onwards. Across the board functional income distribution can be characterised as being stable. The comparison between personal income distribution and functional income distribution including transfers suggest, that the jump of profit quotas between 1991 and 1994 affected only ~~increased only~~ the top decile; whereas the upper middle classes lost income shares as shown in the wider distance of the 1994 Lorenz curve to the 45-degree line (see also tables 1 and 2).
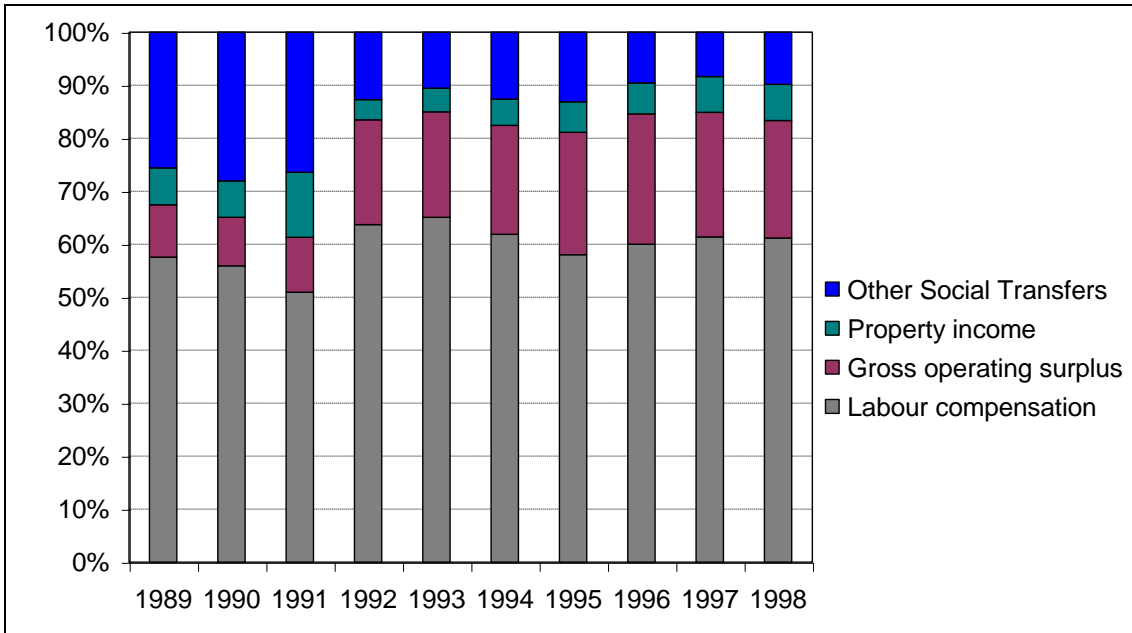
Figure 2.4.   Functional income distribution and transfers, in per cent of national income, Hungary 1989-1998

4.2.3   Poland

A ~~similar~~ picture similar ~~as in~~to Hungary has been found for Poland. Here there is only a very marginal increase in inequality until 1992, but a considerable higher degree of inequality
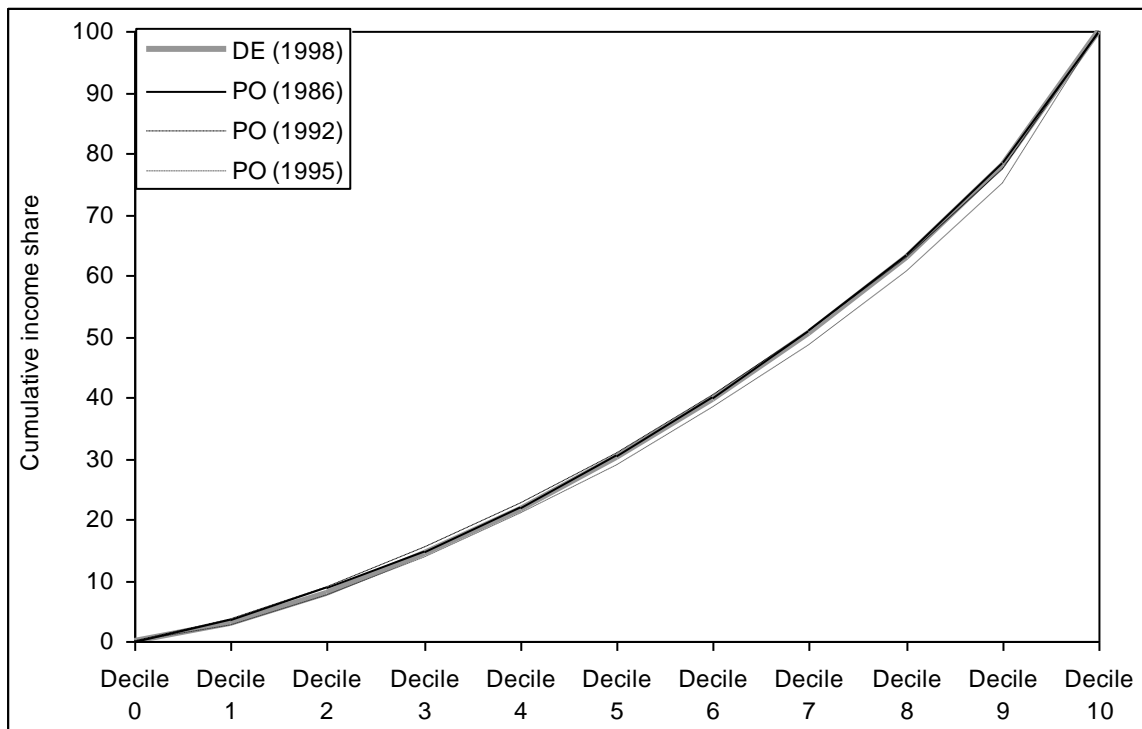
Figure 2.5.   Personal income distribution, Poland 1986, 1992 and 1995

in 1996. It is notable that this increase developed for the benefit of the upper middle classes, whereas the top decile and the lower deciles remained relatively stable. The degree of inequality is slightly below the benchmark. The overall picture is well in line with the Czech Republic and Hungary representing a gradual move towards higher inequality, which is in the range of EU inequalities.

For Poland at first glance the proportions of profits and wages seem to be unusual, but the size is influenced by the tax system and cross-country comparisons of the absolute size of quotas are not intended here. Focus of interest in this study is change rather than size. In 1989 and 1990 earnings were not divided into wages and surplus. The first observation is that social transfers decrease in the initial phase of transformation and remain slightly above ten per cent from 1993 onwards. One reason for this relative high level are the pension payments, which were kept at levels very close to previous earnings of the recipients. Apart from this aspect functional income distribution remains stable throughout transformation. The share of wages ~~almost~~ displays <u>almost</u> no change and profits sometimes increase slightly on the expense of property income and vice versa, but these minor movements are likely to be caused by interest rate variations. As interest payments are the major factor in property income an increase in the market rate of interest increases this component of functional income distribution. Again, we find a picture of stability in functional income distribution, if other sources do not grow correspondingly (ceteris paribus). Like ~~in~~ Hungary<u>,</u> the jump in profits from 1992 to 1995 ~~was for the~~ benefit<u>ed</u> of the top decile only, but decreased the income shares of the upper middle classes as shown in the widen<u>ing</u>~~ed~~ distance of the 1995 curve in particular for the deciles 5 to 9 (see also tables 1 and 2).
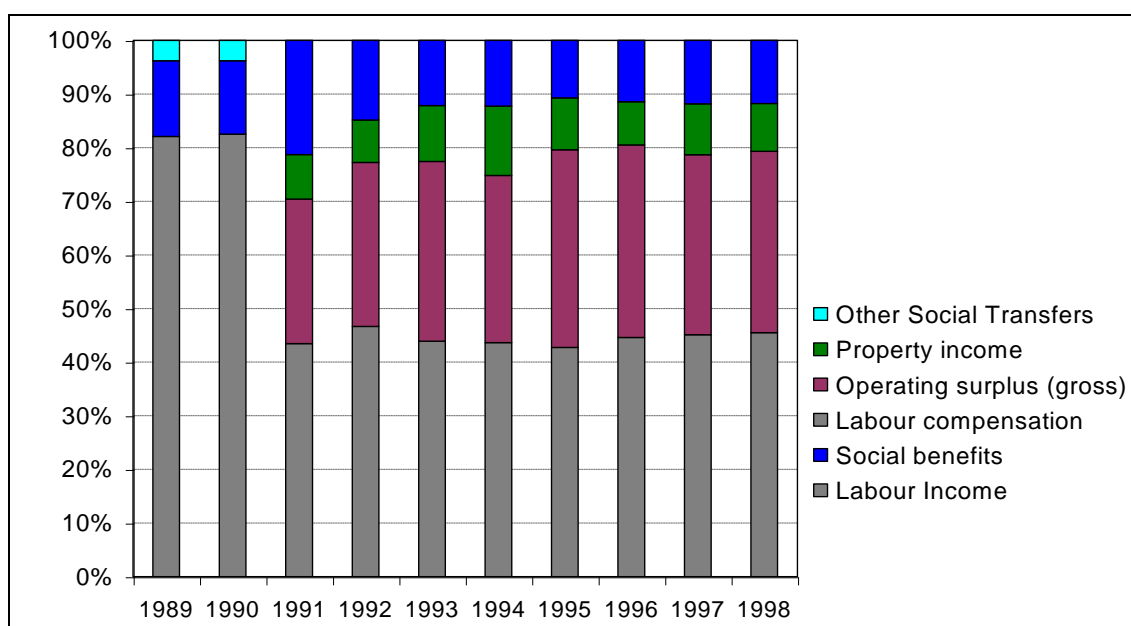
Figure 2.6.   Functional income distribution and transfers, in per cent of national income, Poland 1991-1998

4.2.4. Russia

Russia is different than~~o~~ the observations above. ~~First of all e~~Even in communist times the level of inequality was higher than in other European socialist countries and it was also higher than in Germany. Secondly, there is a sharp increase in inequality from 1991/1992 to 1995/1996[8] ~~in the course of transition~~, which went along with declining GDP. Thirdly, the winners ~~of the change in income inequality~~ are clearly ~~to be located within~~the people in the top decile. There is a shift from the deciles $1 - 7$ up to the top decile creating the class of the so-called 'super rich'. However the observation needs to be read more carefully against observations in the other countries under review in this study, as the development of personal income distribution has to be understood against the Russian background of declining real GDP. The~~A~~ bottom decile received ~~of~~ 1.4 ~~per cent~~% of income (see tables), which is only half ~~of~~ the value in~~for~~ the other countries, including the benchmark.~~,~~ ~~means that the in terms of income lowest ten per cent of the population gain 1.4 percent of national income only.~~ This suggests more extensive ~~that there has been created new pover~~poverty~~ty~~ in the course of transition in Russia. Also the distance to the 45-degree line for the middle classes has widened indicating a further shift towards the 'super rich'. These two aspects raise some methodological concern about measuring inequality with the Gini coefficient. If we have, like in Russia, a hollowing out of the middle classes~~s~~ and the creation of poverty and a new class of 'super rich', than it does not seem very sensible to take the average income as denominator. Instead it would be more appropriate to define a poverty line in order to find the real dimension of the tragedy in income inequality in Russia. For the sake of coherence this exercise has not been pursued in this study.

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[8] Data for 1991 and 1996 are obtained from Sigmund 1998 and refer to earnings rather than to income.

Cumulative income share

100
90
80
70
60
50
40
30
20
10
0

DE (1998)
RU (1991*)
RU (1992)
RU (1995)
RU (1996*)

Decile 0   Decile 1   Decile 2   Decile 3   Decile 4   Decile 5   Decile 6   Decile 7   Decile 8   Decile 9   Decile 10
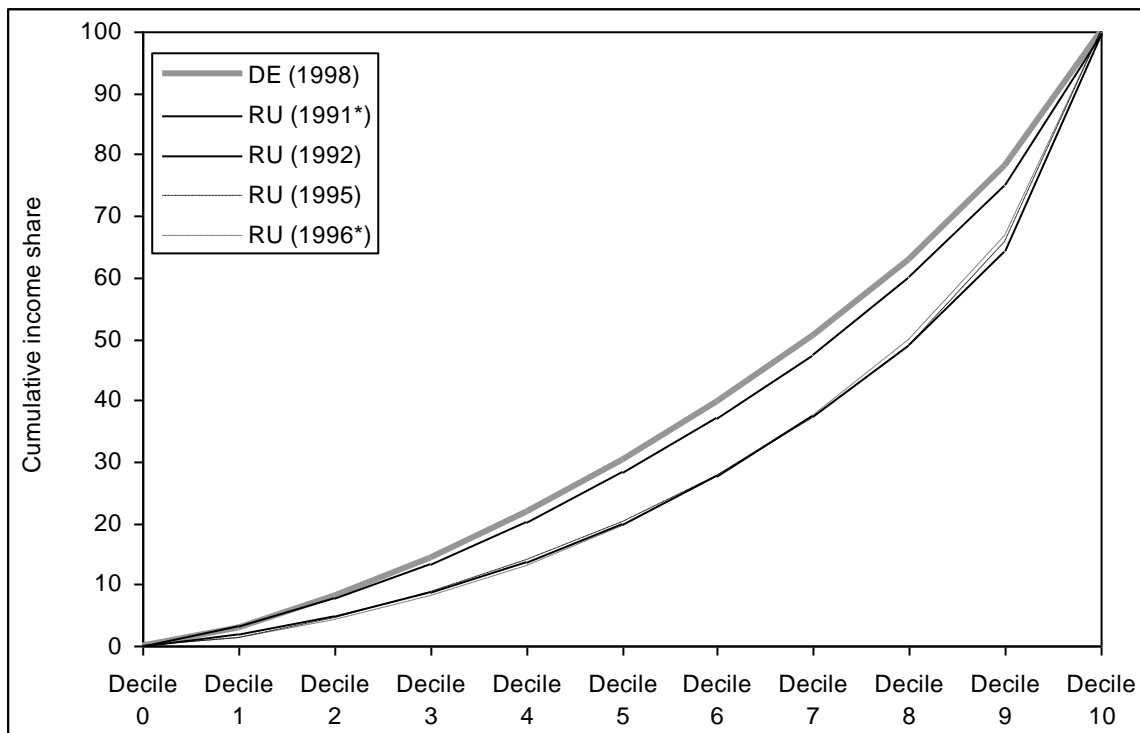
Figure 2.7.   Personal income distribution, Russia 1991, 1992, 1995 and 1996

For Russia, property income is not reported. The figure below displays a falling share of profits, which is no surprise against the background of figure 1, where a falling GDP could be observed. The lack of investment leads to falling profit ratios, whereas wages remain more or less stable. It seems as if transfers have increased, but these figures are an approximation (against net taxes ceteris paribus) only and care should not be exercised in interpreting this data. come over-interpreted. With its continuously falling share of profits Russia stands out as a case of changing functional distribution of income. We may suspect that this development lead to declining investment and as a with the consequence of declining GDP. as shown in figure 1.
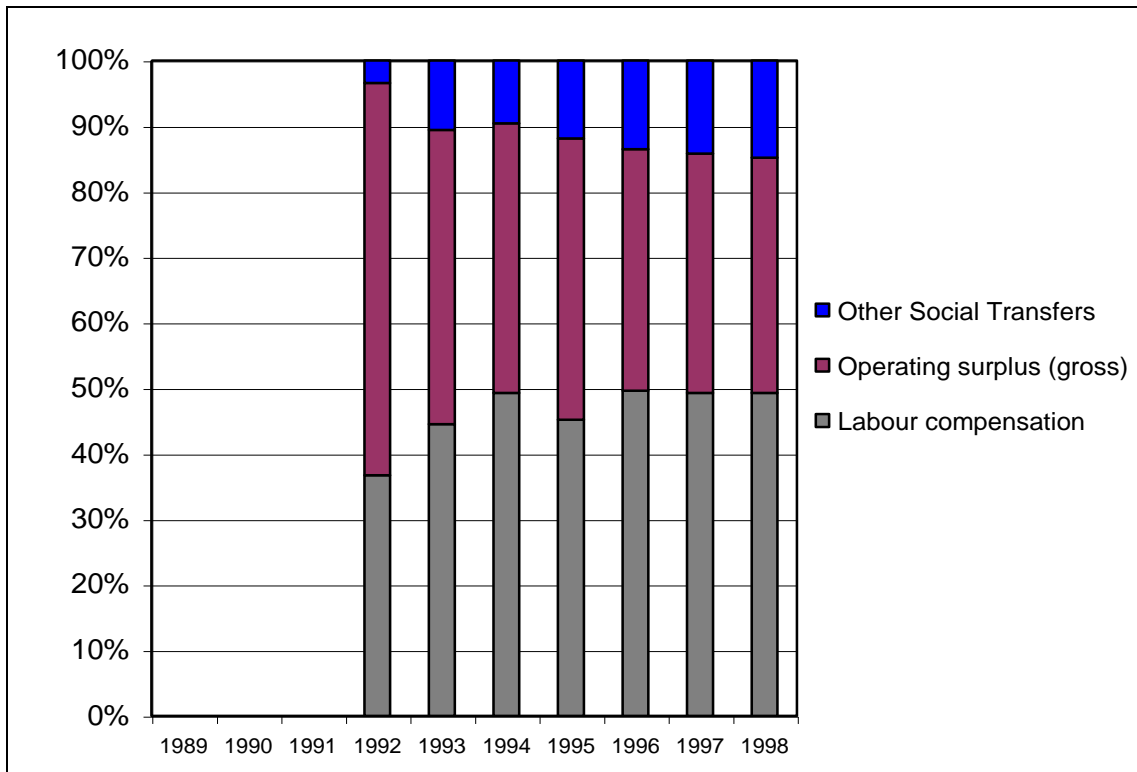
Figure 2.8.   Functional income distribution and transfers, in per cent of national income, Russia 1992-1998

4.3. Cross-country comparisons

To summarise the observations above, it is clear that we have two different sets of experience in transition from socialism to capitalism as far as income development and income distribution is concerned. At first glance the European countries seem to follow a convergence path well in the range of EU income distribution, although slightly below the German benchmark Lorenz curve. All the three EU accession countries followed a gradual path of increasing inequality. In sharp contrast to the European transition experience Russia stands out as a case of dramatically rising inequality leading to polarisation between lower and top income classes and a hollowing out of the middle classes.

This is confirmed by a closer look into the deciles themselves (see appendix, tables 1 and 2). Here we see that the bottom decile in Russia is half of the size of Germany ~~as benchmark country~~ and the other European transition countries. The top ten percent of the population accumulate about one third of national income in Russia whereas this income class gains about one fifth to one forth in the other countries. The European household statistics display strong middle classes in the European countries, which remains stable throughout transition. The picture is confirmed by per capita observations (table 2).

A closer look at the relevant deciles does, however, reveal that significant changes ~~there~~ have taken place. ~~some strong changes with in the societies.~~ ~~To~~ In ~~begin with~~ Poland, ~~as~~ the fastest growing economy, the bottom decile receives ~~of~~ 2,7% of national income. This ~~per cent~~ is well within the EU (German) range. But describing the situation in this way ~~This statement bears the problem to~~ overlooks the fact that bottom decile ~~the lowest ten percent of the Polish population in terms of~~now ~~inco~~has 25% less income ~~me receive now more than one quarter less of income~~ than before. ~~, which is a major change indeed.~~ Also the top decile has gained most over the course of transition. This is also true ~~e latter observation applies~~ for all transition countries under review. The share of the top decile is also significantly higher than in Germany.

There is also one further observation with regards to the Czech Republic[9]. Here we find rather low bottom deciles within the household statistics (table 1) during socialism in comparison with other transition countries, but very high values within the per capita statistics (table 2). Vecernic (2000) has interpreted this as a consequence of communist ideology, where family values were less import compared to equality per capita. This has changed sharply in the transition period, where we find a twenty per cent decline of the bottom decile per capita. This can be explained by the fact that many women left the workforce of the low paid sector, which also explains the slight increase of the bottom decile in the household statistics in the years 1988 and 1996.

Returning to the initial question about the interrelationship between growth and income distribution the observations have to be interpreted more carefully. The major picture remains correct only in so far as again Russia stands out, because here rising inequality coincides with declining income and growth. The question above for Russia needs to be revised in the way that one is tempted to say that sharply rising inequality has hampered growth through destabilising the climate for private investment and decreasing the state of confidence in the period under observtion.

The normal inverted U-shape of the Kuznets curve shows rising inequality in the initial phase of growth with decreasing slope and after a maximum of inequality growing income is supported by declining inequality. Obviously some modifications are required for Russia, as here increasing inequality goes along with decreasing GDP. In that case a Kuznets relationship could only be pictured through a southwest extension of the 'classical' curve, without any guaranty whether or not the 'classical' path will ever be reached (see graph 1). This ~~does of course~~ raises the question of whether a Kuznets curve for Russia ~~does~~ makes any sense at all.

If we assume Kuznets curves for the Czech Republic, Hungary and Poland, the next obstacle is that we do not find much growth in the Czech Republic either. Reasons for this phenomenon of moderately rising inequality and stagnation of income will be explored in the following section. At this stage it is already difficult to decide, where to

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[9] Unfortunately for this country no coherent data set was available yet.

locate the Czech Republic on the 'classical' Kuznets curve. For the sake of the curve one could assume that the Czech Republic finds itself on a part of the rising branch of the curve with a rather steep slope, where a moderate increase in inequality does not have a substantial effect on growth. Again the whole construction of the curve with an almost vertical part appears to be dubious.

For Hungary and Poland the locus on the Kuznets curve would be close to its maximum. The increase in inequality has been growth promoting and these countries performances suggest that the relatively high level of equality maintained throughout transition has stabilised the catching up development moving toward a convergence path to EU levels. These economies are now growing more slowly and it may be speculated that the maximum of the curve is reached, where higher income equality would foster growth..

Graph 1: The Kuznets curve for transition countries
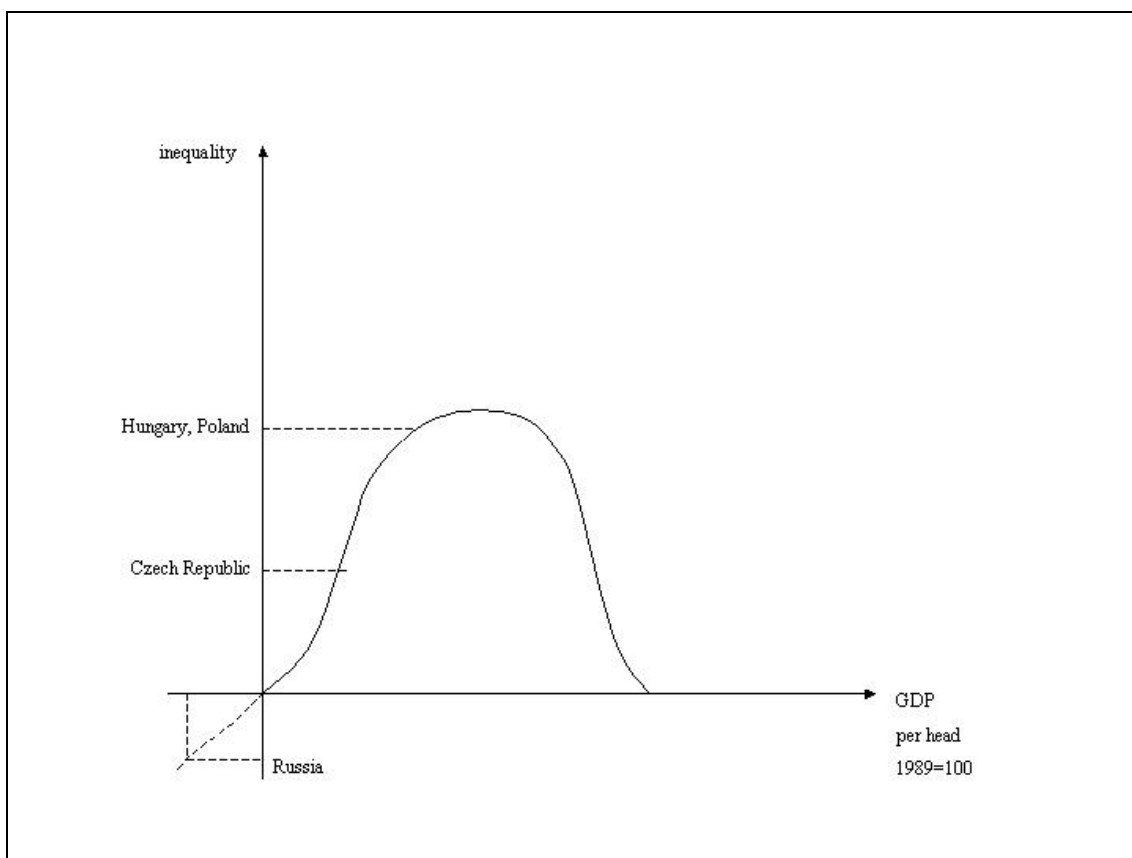
5. Country performances reconsidered

One aspect of transition economics is that available data are in transition themselves[10]. Therefore it appears to be not only legitimate but also most appropriate to apply a hermeneutic method rather than thorough econometrics. In particular in the context of income and growth for the period under review it remains uncertain whether we are observing growth or a business cycle.

 what effect has to be attributed to growth and to which extend it is a phenomenon of the business cycle. We have to operate with stylised facts.

The intellectual challenge in the Czech case is that it contradicts conventional wisdom in two ways. Its growth performance does not fit into the picture of the J-curve and its development of income distribution does not follow a Kuznets curve. It is therefore misleading that income dynamics of transition in Europe can be graphed in such a way (see for example Aghion/Commander 1999) and only Russia and the former Soviet Union (FSU) would follow a different path. The difference between the Czech Republic and (according to Keane/Prasad) Poland compared to Russia and FSU is however that we can not observe a steep rise in inequality settling at a high level, whereas the myth on East Europe is a Kuznets type of rising inequality decreasing after a period of growth. In the Czech case we have to explain the relative stability of income distribution going along with transformation recession, upswing, recession and finally stagnation of national income.

One possibility is that data might not be reliable and inequality might be far higher, if the shadow economy could have been included into this study. Schneider/Enste (2000) present data that introduce the Czech Republic (differing according to estimation method) as the transition country with the lowest share of black economy. However, in the context of dynamics of the shadow economy we find the strongest increase of the share of the black economy in the initial transition period of 1989-90 to 1990-93 on average as percentage of GDP from 6.4 to 13.4 (according to the Johnson et al. method, see Schneider/Enste 2000, p. 101) in the Czech Republic. If we assume that profits are not declared, then higher income categories have benefited most from moving into the black economy. Also the lowest category of income, which were characterised by a high number of children might be part of the shadow economy, as this group consists largely of Roma families, who in tendency have more children but are not officially registered. The degree of correction of the Czech stability picture must be uncertain by nature of the argument.

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[10] Some of the data presented in this study rely on the yearbooks of the national Statistical Offices, in particular those on functional income distribution. There the rRevised figures of previous years sometimes differ sometimes at aroundby almost 20% per cent. Another example is the paper by Keane and Prasad (2000), which rejects Milanovic's findings on empirical grounds for the case of Poland. These authors come to similar results for Poland as this paper does for the Czech Republic.

Finally there seems to be some evidence for turning round the point made by Dollar and Kraay (2000) stating "growth is good for the poor", depending on the state of development in economies of transition. Taking Barro's $ 2000 threshold not serious but as an illustration, it could be that inequality is too low to allow for the emergence of the Kuznets curve. Not even Barro would go so far to suggest income distribution policy in favour of the rich, but the infrastructure for the creation of profit expectations in the official private sector might demand for a potential of higher inequality in the Czech Republic (see Hölscher 2000). The stability of social transfers shown above does not work in that direction and a redirection into education could be carefully advised. The argument is reinforced by rising unemployment in the Czech Republic. But as stated earlier the case for the Kuznets curve for such a short period of time is problematic.

Hungary and Poland are explained quickly, as here we find the situation, where a rather high level of equality assures the social acceptance of the reform process. We have located these two countries slightly before the maximum of the Kuznets curve. This implies that we have not yet reached the benchmark scenario of Germany, where it can be assumed the growth on the high level of income is supported by more equality within the society. Some more inequality for the benefit of the upper middle classes (deciles 6 to 8) in Hungary and Poland would probably have a growth promoting effect though increased demand for household consumption. In principle we have a 'well behaved' Kuznets relationship between equality and growth in Hungary and Poland.

The Russian case reconsidered raises the question of how this population managed to survive transformation without major civil wars or other forms of political unrest. What springs to mind in the first place is the huge non-market sector of subsistence, which keeps households alive though Dacha farming. Schneider/Enste estimate the size of the shadow economy in Russia at 20-27 percent in Russia (higher values are estimated for other former Soviet Union countries). Secondly the political system in Russia is apparently capable to pacify society although inequality is rising dramatically. Thirdly Russia has experienced a longer period of declining income, following the J-curve pattern, which certainly had a strong impact on the lower income classes and the increasing poverty. Gradstein/Milanovic (2002) suggest that democratic experience might play a crucial role for income inequality. Such a historical approach clearly points towards the difference between the Central European Countries and Russia. The conclusion for economic policy will have to take experiences from developing countries into account for the case of Russia.

6. Convergence versus divergence

The general insight won from tThis study shows one must be careful in arguing that there is that a causal relationship between general income creation, or even growth, and equality in terms of an interpretation of the direction has to be very careful. Income

distribution seems to be a social variable to be seen in its entire historical context[11]. Even if the Kuznets curve can be observed as an empirical regularity the explanation for this regularity remains dubious.

Progress however has been made in measurement and data collection. This is not always true for transition economies, where assessments become outdated by a turn of facts sometimes very quickly. In this study demystification of the J-curve of transformation as well as a Kuznets curve of transition in Eastern Europe are considered to be the major contribution to progress in economic knowledge.

This finally questions the role of the state with regards to income equality in the transition process. Political economy of transition has pointed at political constraints for a while (see for example Roland 2000 and 2002) and the convergence in income distribution to German (or EU) levels is well documented and mirrored in for example the creation of convergence to EU levels of law and property rights. The interesting findings of this study are that for other issues of EU accession the new members have been set clear criteria, be it the Maastricht Treaty, the acquis communitaire or ERM II, which in themselves might have set a convergence process towards EU standards into motion. Certainly incentives were created, which do not exist for Russia, which finds itself within an entirely different historical context including a very different set of institutions of society and governance. Democracy as such is not a sufficient explanation, as while Russia's post-communist reforms were accompanied by huge increases in inequality, the reverse happened in Hungary, the Czech Republic and Poland. To identify institutional factors in respect income distribution more precisely, a more advanced research design is required. This raises a new conceptual challenge of frameworks used to study growth and income distribution in the transition process.

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[11] For a wide-ranging institutional approach see Tomann (2000) or Hölscher (1996).

Table 1　Cumulated personal income distribution of selected countries and years and in comparison to Germany 1998 (per household), *in per cent cumulated quintile shares*

		lowest fifth		2nd fifth		3rd fifth		4th fifth	
		Cumulated income	Difference to Germany 1998	Cumulated income	Difference to Germany 1998	Cumulated income	Difference to Germany 1998	Cumulated income	Difference to Germany 1998
Czech Republic:	1988 **	6.6	-1.4	20.1	-1.7	40.1	0.4	65.3	2.3
	1992	11.2	3.2	26.4	4.6	44.6	4.9	66.8	3.8
	1996 **	6.7	-1.3	19.0	-2.8	36.3	-3.4	59.9	-3.1
Hungary:	1991	8.7	0.7	21.8	0.0	39.0	-0.7	61.5	-1.5
	1994	8.1	0.1	20.7	-1.1	36.9	-2.8	58.4	-4.6
Poland:	1986	8.7	0.7	22.1	0.3	40.1	0.4	63.7	0.7
	1992	9.0	1.0	22.7	0.9	40.2	0.5	62.8	-0.2
	1995	7.7	-0.3	20.9	-0.9	38.2	-1.5	60.6	-2.4
Russia:	1991 *	7.7	-0.3	20.3	-1.5	37.2	-2.5	60.1	-2.9
	1992	4.8	-3.2	13.7	-8.1	27.8	-11.9	49.1	-13.9
	1995	4.5	-3.5	13.9	-7.9	27.8	-11.9	49.0	-14.0
	1996 *	4.1	-3.9	13.1	-8.7	27.6	-12.1	46.0	-130

Note:　Data for differences to Germany 1998 are in percentage points with positive numbers indicating higher quintile shares as compared to Germany. The highest fifth equals 100 per cent.

Sources:　LIS Database; * Sigmund (1998); ** Hölscher (2000); *** SOEP (DIW 2000).

Table 2   Changes of personal income distribution of selected countries between selected years (per household), *in per cent change rates*

	lowest fifth	2nd fifth	3rd fifth	4th fifth
Czech Republic: 1992/1988	69.7	31.3	11.2	2.3
1996/1992	-40.2	-28.0	-18.6	-10.3
Hungary: 1994/1991	-6.9	-5.0	-5.4	-5.0
Poland: 1992/1986	3.4	2.7	0.2	-1.4
1995/1992	-14.4	-7.9	-5.0	-3.5
Russia: 1992/1991	-37.7	-32.5	-25.3	-18.3
1995/1992	-6.3	1.5	0.0	-0.2
1996/1995	-8.9	-5.8	-0.7	2.0

Sources: see table 1.

Table 3   Distribution of household income according to decile shares (per household), *in per cent decile shares*

Decile Share	Czech Republic			Hungary		Poland			Russia				Germany
	1988**	1992	1996**	1991	1994	1986	1992	1995	1991*	1992	1995	1996*	1998***
1	2.5	4.9	2.8	3.5	3.1	3.6	3.7	2.7	3.1	1.8	1.4	1.4	2.8
2	4.1	6.3	3.9	5.2	5.0	5.1	5.3	5.0	4.6	3.0	3.1	2.7	5.2
3	5.9	7.2	5.6	6.1	5.9	6.1	6.4	6.1	5.8	3.9	4.2	3.9	6.4
4	7.6	8.0	6.7	7.0	6.7	7.3	7.3	7.1	6.8	5.0	5.2	5.1	7.4
5	9.3	8.7	7.9	8.0	7.6	8.4	8.2	8.1	7.9	6.3	6.3	6.5	8.4
6	10.7	9.5	9.4	9.2	8.6	9.6	9.3	9.2	9.0	7.8	7.6	8.0	9.5
7	12.0	10.5	10.9	10.4	10.0	11.0	10.5	10.4	10.5	9.5	9.3	9.9	10.8
8	13.2	11.7	12.7	12.1	11.5	12.6	12.1	12.0	12.4	11.8	11.9	12.5	12.5
9	15.1	13.4	15.4	14.4	15.0	14.9	14.6	14.4	15.3	15.4	16.7	16.9	15.1
10	19.6	19.9	24.7	24.0	26.6	21.4	22.5	24.9	24.6	35.3	34.2	33.1	21.9
1 - 10	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Sources: see table 1.

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