FOLLOWING THE TRACKS OF ATKINSON AND MICKELWRIGHT: THE CHANGING DISTRIBUTION OF INCOME AND EARNINGS IN POLAND FROM 1989 TO 1995

by Gian Paolo Caselli and Maurizio Battini

Introduction

The distribution of income in former planned economies has been widely studied by Lydall (68-78), Wiles (71), Pryor (73), Phelps Brown (88), Morrison (84), Redor (88) and lately by Atkinson and Micklewright (92). All of the authors, except Redor, agree in broad terms that the distribution of income was more egalitarian in communist economies than in the western ones. The reform process is likely to establish a less egalitarian distribution of income.

After the beginning of the reform process very few studies have appeared concerning the changed distribution of income in the eastern countries. There is an empirical reason for this lack of studies: the elapsed time from the beginning of the reform process is short, the statistical data are not completely reliable, owing to changed ways of collecting data, making it difficult to compare the pre-1989 situation with the post-1989 one. The greatest difficulty lies in comparing data referring to different economic systems which are radically changing over time.

Studies are beginning to appear: Frick, Topinska, Wagner, Mueller (97) on Poland and East Germany, Rutkowski (96), Kudrycka and Radziukiewicz (92) on Poland, Vecearnik (95) on the Czech Republic, Kornelius and Weder (96) on the Baltic countries, Doyle (96) on Russia and Milanovic (96) on various countries.

The aim of our paper is twofold. The first aim is to study the distribution of income and earnings in Poland from 1988 to 1995, following the tracks of Atkinson and Micklewright’s book, applying the same methodology and the same data they use up to 1989; in a way this work seeks to be an extension of the work of Atkinson and Micklewright.

All of the works we have quoted above, except Milanovic, study the changing earnings or income distribution of the reforming countries taking the value of an inequality index (usually the Gini coefficient) for one year (Rutkowski 1993, Topinska 1990, Kornelius 1994) and then comparing this value with a prereform one. On the contrary, we estimate the inequality indexes for every year after the beginning of the transformation in order to assess the dynamic pattern of the income or earnings distribution, trying to assess which are the winning or losing social categories in the reform process.

Department of Political Economy University of Modena

The second aim is to assess, through the use of generalized Lorenz Curves, the gains or losses in terms of general economic welfare before and after the beginning of the reform period, giving a more vivid picture of the changing pattern of income and earnings distribution in Poland in this crucial time period.

General results

The distribution of income 1985 – 1992

In this paragraph we consider the behaviour of inequality indexes from 1985 to 1992. The indexes we take into account are the following: Gini coefficient, Robin Hood Index, coefficient of variation and the decile ratio.

Table 1  INCOME INEQUALITY INDICATORS

<table>
<thead>
<tr>
<th></th>
<th>P5</th>
<th>P25</th>
<th>P50</th>
<th>P90</th>
<th>P95</th>
<th>P90/P5</th>
<th>Gini</th>
<th>RHI</th>
<th>Var.Coeff.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1985</td>
<td>48.9</td>
<td>75.8</td>
<td>134.2</td>
<td>175.1</td>
<td>209.2</td>
<td>3.04</td>
<td>0.253</td>
<td>17.8</td>
<td>0.527</td>
</tr>
<tr>
<td>1988</td>
<td>49.7</td>
<td>75.8</td>
<td>133</td>
<td>174.8</td>
<td>207</td>
<td>2.96</td>
<td>0.246</td>
<td>17.4</td>
<td>0.502</td>
</tr>
<tr>
<td>1989</td>
<td>44.9</td>
<td>72.6</td>
<td>135.9</td>
<td>199.2</td>
<td>217</td>
<td>2.51</td>
<td>0.209</td>
<td>18.9</td>
<td>0.540</td>
</tr>
<tr>
<td>1990</td>
<td>46.02</td>
<td>73.7</td>
<td>134.9</td>
<td>176.05</td>
<td>200.11</td>
<td>3.19</td>
<td>0.258</td>
<td>18.17</td>
<td>0.523</td>
</tr>
<tr>
<td>1991</td>
<td>46.79</td>
<td>74.51</td>
<td>132.58</td>
<td>175.25</td>
<td>208.05</td>
<td>3.13</td>
<td>0.253</td>
<td>17.77</td>
<td>0.509</td>
</tr>
<tr>
<td>1992</td>
<td>45.86</td>
<td>73.56</td>
<td>135.02</td>
<td>170.91</td>
<td>211.69</td>
<td>2.24</td>
<td>0.26</td>
<td>19.26</td>
<td>0.52</td>
</tr>
</tbody>
</table>

Source: Budżety gospodarstw domowych, various years, GUS, Warsaw, author’s aggregations and calculations based on partrian interpolation.

From table 1 we see that the income distribution did not change very much, whichever index we consider, the Gini coefficient in 1985 was 25.3 and at the end of the period is 26. There is a negligible increase which witnesses a substantial stability of the pattern of income distribution. The highest value of the index 26.8 in 1989 may be attributed to the price liberalization of agricultural goods, which increased peasants’ incomes, changing the income distribution in their favour for that year. This temporary effect was cancelled out by the subsequent effects of the economic policy measures enacted by the first democratic government. The other indices confirm the same pattern. The estimates made by Topinska and Wagner for the year 1989 show that the value of the Gini coefficient is very close to our estimate (26.07 against 26.8). The general indexes of income distribution do not show any beginning of an expected process of income dispersion. In our opinion this process could not be detected from data on income distribution, for the simple reason that the income originating in the non-agricultural private sector, which increased markedly in that period, was not collected.

Furthermore, we estimated inequality indexes, Gini coefficient and RHI for the four socio-economic groups whose family budgets are given by the GUS and which account for the whole Polish population (table 2).