

ECONOMIC GROWTH, INCOME DISTRIBUTION AND POVERTY IN POLAND DURING TRANSITION

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Abstract *

This paper attempts to analyze the linkages between macroeconomic policies and economic growth variables, their movement over time, and their impact on poverty in the case of Poland. Poland, a middle-income country, is of particular interest because its data sources allow for a relatively detailed analysis of such developments, but also because of macroeconomic environment and the economic growth variables show a relatively sizable degree of variance. In addition, Poland has struggled in the last few years to reduce poverty while still experiencing positive economic growth. The paper will show that in Poland poverty-reducing growth depends heavily on the ability of the economy to generate jobs. During the early years of transition, net job growth was positive, but after the Russian crisis of 1998, productivity gains were accomplished mostly through labor shedding, consequently increasing poverty in Poland. In addition, the paper identifies how fiscal and social protection policies impact Poland's income distribution and poverty trends.

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Introduction. In 1989 the first partially free elections in Poland's post-World War II history took place, and Poland became the first country in Central and Eastern Europe to reestablish democracy and embark on an economic and social transition to a market economy. A "shock therapy" program implemented during the early 1990s enabled the country to transform its economy into one of the most dynamic and robust in the region. Today, Poland's economy is by far the largest among the new EU-member states. It accounts for over 50 percent of the cumulative population of the 10 new member states¹ and also about 50 percent of their cumulative GDP.

The beginning of Poland's transition in 1990 was marked by exceptionally difficult macroeconomic conditions, which included high inflation, a large legacy of external debt, and a high black market foreign exchange premium. Saddled with a large part of the enterprise sector that was considered "value subtracting," Polish policymakers took huge risks by making the zloty convertible, fixing the exchange rate, and lowering import barriers. With privatization lagging behind, many predicted a crisis based on the notion that enterprises would not be able to cope with market conditions, which would lead to politically unacceptable mass bankruptcy and social upheaval. This did not happen. On the contrary, Poland turned out to be unique among the large front-running European transition countries in having an unbroken growth record once growth resumed after the initial output collapse.

This paper attempts to analyze the linkages between macroeconomic and economic growth variables, their movement over time, and their impact on poverty and income distribution. Poland, a middle-income country, is of particular interest not only because its data source permit a relatively detailed analysis of such developments, and also because the macroeconomic environment and economic growth variables show a sizable degree of variance. In addition, Poland has struggled in the last few years to reduce poverty while still experiencing positive but subdued economic growth.

A. A SUCCESSFUL MACROECONOMIC PERFORMANCE

Economic growth has not been uniform over the last decade. After years of growth above 5 percent or above in the mid 1990s, growth declined substantially to reach a meager 1 percent in 2001, only to increase again in 2003 with good prospects for the coming years (see Figure 1 and Table 1). The slowdown in growth was accompanied by an increase in poverty and unemployment as is evident from Figure 1.

This section provides a brief discussion of recent economic developments in Poland. The Polish Central Statistical Office's annual Household Budget Survey (HBS) micro-data sets (1994-2002), as well as publicly available real sector and monetary macro data, have been used to analyze linkages between the macroeconomic environment on the one hand and poverty, inequality, and consumption distribution trends on the other.

¹ The 10 new member states that joined the EU on May 1 2004 are the Czech Republic, Cyprus, Estonia, Hungary, Latvia, Lithuania, Malta, the Slovak Republic, Slovenia, and Poland.

Figure 1: Growth, Employment and Poverty, 1994-2002

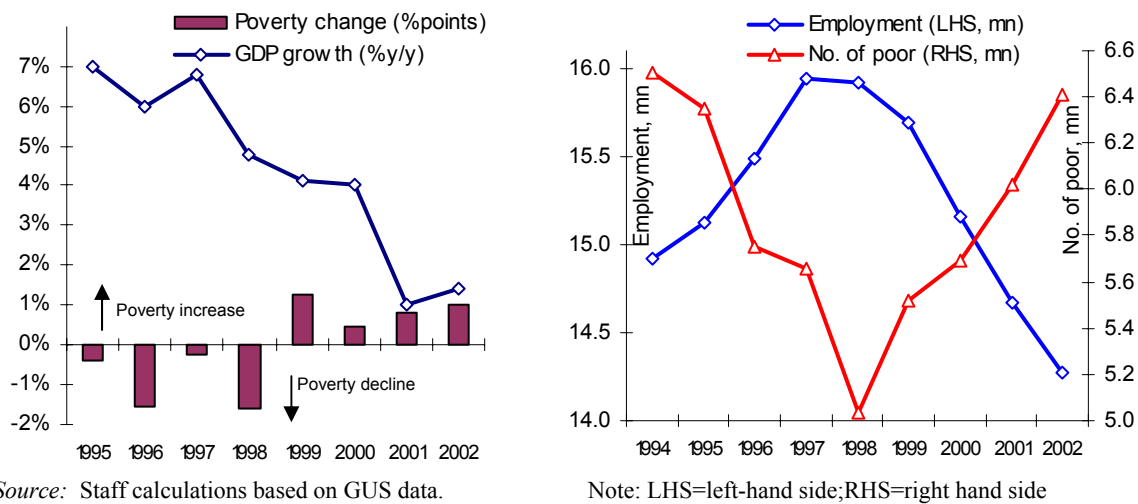


Table 1: Selected Economic Indicators, 1997-2003

Main macroeconomic indicators	1997	1998	1999	2000	2001	2002	2003
GDP growth, % y/y	6.8	4.8	4.1	4.0	1.0	1.4	3.8
Private consumption growth, % y/y	6.9	4.8	5.2	2.8	2.1	3.3	3.1
Gross fixed investment growth, % y/y	21.7	14.2	6.8	2.7	-9.8	-5.8	-0.9
Unemployment rate, e.o.p., %	10.3	10.7	13.8	16.3	19.4	20.0	20.0
Poverty headcount, % of population	14.7	13.1	14.3	14.8	15.6	16.6	..
General gov't expenditures, % of GDP	43.5	41.9	42.7	40.5	43.3	44.0	46.3
General gov't budget balance, % of GDP	-2.8	-2.4	-3.1	-3.0	-4.9	-5.9	-6.6
Consumer price inflation, % y/y	13.2	8.6	7.3	10.1	5.5	1.9	0.8
NBP refinancing rate, %	28.0	21.0	21.5	24.0	16.5	9.75	6.0
Current account deficit, % of GDP	-3.7	-4.1	-7.6	-6.0	-2.9	-2.6	-2.0
External debt, % of GDP	34.6	35.2	41.6	39.8	37.7	41.7	47.6

e.o.p – end of period, 2003 – forecast or latest available

Source: GUS data.

The Factors Behind the Trends in Growth

While many factors can account for Poland's growth record - including consistent economic policies despite frequent changes of government - the main economic factor has been that Poland managed the macro-micro policy linkages well.² At its core, this meant maintaining a combination of hard budget constraints for enterprises, a competitive real exchange rate, and a post-privatization governance structure that allowed businesses, in particular small and medium-size enterprises, to flourish. By reducing fiscal deficits and placing public debt on a stable and sustainable trajectory (including making debt reduction agreements with the Paris Club), Poland achieved a macroeconomic environment that was conducive to growth and that allowed a gradual decline in inflation (see Table 1). However, it is important to note that during the early years of transition the restructuring process was aided by relatively easy access to social safety net programs for redundant workers, and that the dismantling of the overly generous social assistance

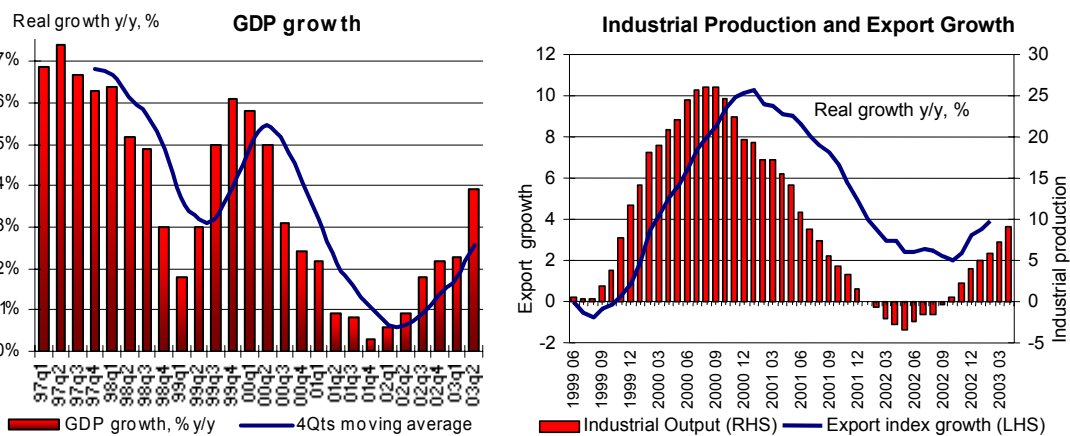
² See for example, unpublished memo by Brian Pinto (2002).

network of the communist era has not been tackled with the same vigor as have market-oriented reforms.

The loss of export markets in the East as a consequence of the Russian crisis in 1998 costs Poland around 3 percentage points of GDP and triggered a new round of enterprise restructuring to curtail falling profitability. This time, the resulting improvements in productivity were brought about in large part through reducing employment. This reduction, together with the increased numbers of newcomers to the labor market owing to the baby boom of the early 1980s, led to significant increases in unemployment. As of December 2002, over 3.3 million people (20 percent of the labor force) were unemployed.

These developments coincided with a shift in monetary policy in 1999, leading to the creation of an independent Monetary Policy Council (MPC). Inflation targeting became the main anchor of monetary policy, one of the means of facilitating accession to the EMU. When inflation rebounded in 2000 into double digits, the MPC progressively tightened monetary policy by raising its rediscount rate to a peak of 21.5 percent in August 2000. As a result, real lending interest rates increased to over 13 percent during 2001, up from around 10 percent during 1999-2000. In combination with possible over-investment during the high growth years of 1996-99, this led to a significant decline in domestic demand, and especially in investment, from the second half of 2000 onwards. At the same time, inflation declined impressively from 2001 onwards to less than 1 percent in 2003.

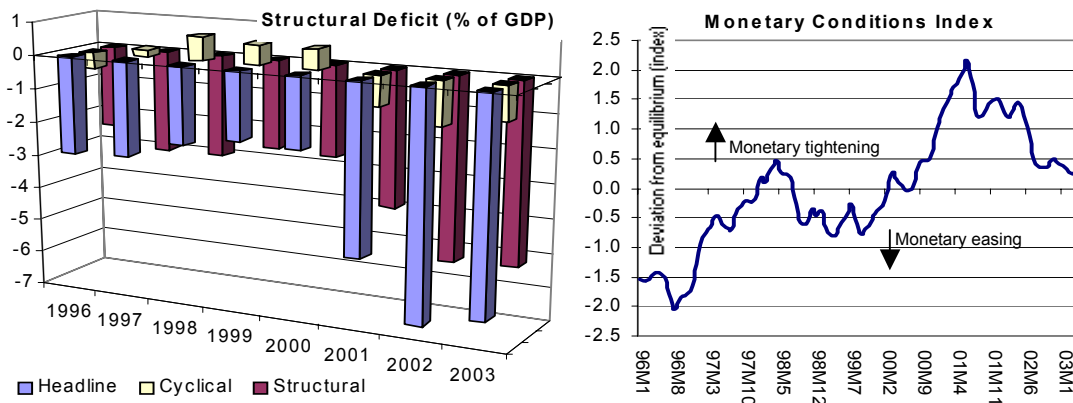
Figure 2: GDP Growth, Export, and Industrial Performance



Source: Staff calculations based on GUS data.

The macroeconomic environment deteriorated progressively at the end of the last decade. While monetary policy tightened during the second half of 2000, fiscal policy eased considerably during 2001. Not only did the general government balance widen from -3.0 percent for 2000 to -5.9 percent for 2002, but the structural deficit (i.e., corrected for business cycle effects) worsened by over 2 percent to over 5 percent of GDP by 2002 and 2003 (see Figure 3). This “tight monetary and loose fiscal” policy mix has additionally crowded out investment and moderated the potentially expansionary effect of fiscal policy.

Figure 3: Fiscal and Monetary Developments, 1996-2003



B. DID POVERTY RESPOND TO GROWTH?

It is clear that the high growth rates of the mid-1990s to 1998 facilitated a decline in poverty in Poland, which suggests high responsiveness of poverty to economic growth. From 1999 onward, however, this responsiveness appeared to weaken; poverty began to increase even though growth remained at 4 percent for 1999 and 2000 and being modestly positive thereafter.

A Statistical Artifact?

To fully evaluate the role of growth in poverty reduction, it is important to note that household consumption – as captured by the HBS – performed much more badly than the national accounts (NAS) would suggest, with average household consumption declining in the low – but positive -- growth years after 1998. This difference persists even when the figures for changes in aggregate private consumption from NAS are considered rather than GDP growth. This is not a phenomenon unique to Poland and may be explained by the unusually high investment accumulation over the 1990s, and by its relatively high export rate.³ Reconciling these two series is beyond the scope of this report, but it is important to note that the HBS shows declining values of average per capita consumption for the period 1999 – 2002 while the NAS data show moderate positive growth. Thus, the estimates of poverty, which are based on the HBS, show increases in poverty in these years despite the positive consumption growth rates shown by the NAS data.

When the responsiveness of poverty to growth in average consumption (rather than to GDP growth) is considered, the analysis shows a very strong link between growth and poverty reduction. Over the last decade the average estimated elasticity of poverty with respect to growth in average consumption from the HBS data has been 3.6 with a peak of 4.11 in 1999.⁴ Given Poland's GDP level, this value compares very well with the estimates for other transition countries and with those typically found in countries outside of the region (Bruno, Ravallion, and

³ Adams (2003).

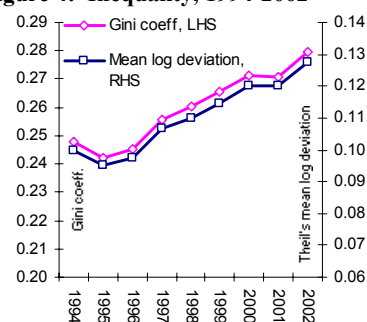
⁴ These estimates are in line with the value of 3.5 given in World Bank (2002).

Squire,1998; Ravallion and Chen,1997).⁵ To sum up: a 1 percent growth in mean consumption brings about a 3 percent reduction in the headcount poverty rate which is equal to about 0.5 percent of the total population or (multiplying by 38.2 million) 185,000 people. Given the relatively high degree of elasticity and the optimistic predictions for growth in 2004, the prospects for poverty reduction in Poland are good. Assuming inequality to increase at the average rate experienced over the last five years, poverty should fall by 6.4 percent, lowering it by 1.5 percentage points to 15.1 percent in 2004 (see table 1).

But Inequality Matters, Too

However, inequality also rose steadily through the second half of the 1990s (see Figure 4). In 2002 the Gini coefficient for consumption inequality was 0.28, which was moderately high compared to other CEE countries (see, for example, World Bank, 2000 and 2002). Given the formerly centrally planned economic systems in CEE countries and their subsequent economic development, it is not surprising that growth is associated with rising inequality. In general, however, CEE countries constitute an outlier in the overall picture – any simple universal link between growth and inequality has been flatly rejected by recent studies (see, for example, Ravallion and Chen, 1997).

Figure 4: Inequality, 1994-2002



Source: Household budget survey

Table 2 decomposes the overall inequality – measured by the Theil mean log deviation index - into two components: (i) differences between groups and (ii) within group inequalities. The focus is on variations within (and between) (i) regional groups (96 groups = 16 voivodships crossed with 6 town sizes), (ii) educational groups (3 groups: higher, secondary, other) and (iii) age categories. If, for example, mean consumption was the same for all regions (i.e., the region variation was 0), then the numbers in the respective row in the table would be 0 and all inequality could be entirely attributed to inequalities within each region. Analogously, if everyone within a given region had equal consumption (i.e., within-region variation was zero) but regions differed in mean consumption, the “between” inequality component would be 100 percent. The table shows that inequality caused by variation within groups is the main component of total inequality for all groups analyzed. However, differences between different educational groups are significant and growing component of overall inequality and are differences between different regions. On the other hand, differences across different age groups were and remain minimal.

Thus, regional inequalities clearly increased during 1994-2002, not only in absolute terms⁶ but also in relative terms. Or, equivalently, regional inequalities rose even more than total inequalities and the role of regional inequalities in overall inequality increased. The increase in the primary education was an even more substantial signifier rising inequality.

⁵ Just to give few examples, the growth elasticity of poverty for Romania was estimated at 3 in 1996 and 1997 but has declined since than to below 2 (World Bank, 2003). An average elasticity of 3.7 was also estimated for Croatia (World Bank ,2002). However, the limited information available suggests much lower responsiveness in other countries. Estimates of around 2 were derived for Russia (World Bank, 2002) and less than 1 for Armenia, Azerbaijan and the Kyrgyz Republic (World Bank, 2003).

⁶ See Chapter 3 of Poland Living Standard Assessment, World Bank (2004) for a discussion of regional poverty and prices

Table 2: Decomposition of Theil Inequality Index (Inter-Group Inequality), 1994-2001

		1994	1995	1996	1997	1998	1999	2000	2001
Theil index		0.100	0.095	0.097	0.107	0.110	0.114	0.120	0.120
Decomposition									
Regional	Within groups	0.092	0.087	0.089	0.097	0.097	0.100	0.104	0.106
	Between groups	0.008	0.008	0.008	0.010	0.013	0.014	0.016	0.014
	Share of between groups	7.9%	8.3%	8.1%	9.4%	11.5%	12.5%	13.0%	11.6%
Education	Within groups	0.087	0.083	0.084	0.092	0.093	0.095	0.097	0.097
	Between groups	0.013	0.012	0.130	0.015	0.017	0.020	0.023	0.023
	Share of between groups	13.0%	12.9%	13.4%	13.8%	15.9%	16.5%	19.5%	19.1%
Age	Within groups	0.098	0.093	0.095	0.105	0.107	0.111	0.118	0.118
	Between groups	0.002	0.002	0.002	0.002	0.003	0.003	0.002	0.002
	Share of between groups	1.7%	2.2%	2.2%	2.0%	2.5%	2.4%	1.5%	1.7%

Source: Authors' calculations based on HBS.

Generally speaking, when inequality increases (if other things are kept constant), poverty normally increases as well, thus dampening the beneficial effect of growth on poverty. Fortunately, changes in the shape of the distribution of consumption are much slower than the change in the mean. Therefore, the positive growth impact should outweigh the negative effect of a widening of the distribution itself.

Decomposing Trends in Poverty

Having described the trends in growth and in inequality, it is important to analyze the effects of these trends on poverty.

Table 3: Decomposition of Changes in Poverty, 1995-2002 (percentage points)

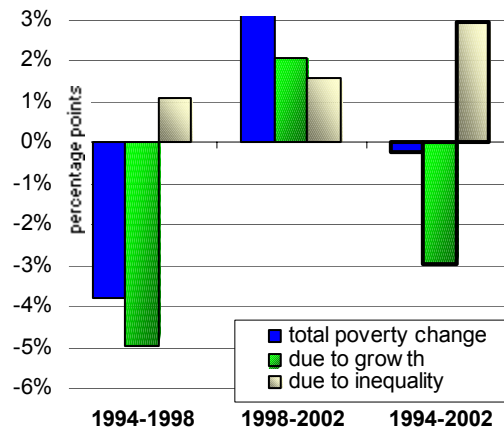
Poverty change	1995	1996	1997	1998	1999	2000	2001	2002
Total	-0.4%	-1.5%	-0.3%	-1.6%	1.3%	0.5%	0.8%	1.0%
Due to growth	0.4%	-2.1%	-1.1%	-2.0%	0.5%	0.4%	0.6%	0.6%
Due to inequality	-0.9%	0.3%	0.8%	0.5%	0.8%	0.0%	0.2%	0.5%

Source: Staff calculations based on GUS's data.

The results of a decomposition of changes in poverty for Poland into their growth and inequality components are presented in Table 3 and Figure 5⁷. It is evident that economic growth was a main driving force in poverty reduction. Two periods are readily distinguishable. During Poland's high growth years, 1994-98, the economic growth effect (5 percent) far outweighed the negative effect of the increase in inequality (-1 percent), resulting in a cumulative decline in poverty of about 4 percentage points. During the subsequent period, 1998-2002, and because of a decline in mean consumption, lack of growth and increased inequality jointly resulted in a cumulative increase in poverty of about 3 percentage points for that period.

⁷ For a description of the methodology used, see Bourguignon (2002).

Figure 5: Decomposition of Changes in Poverty, 1994-2002



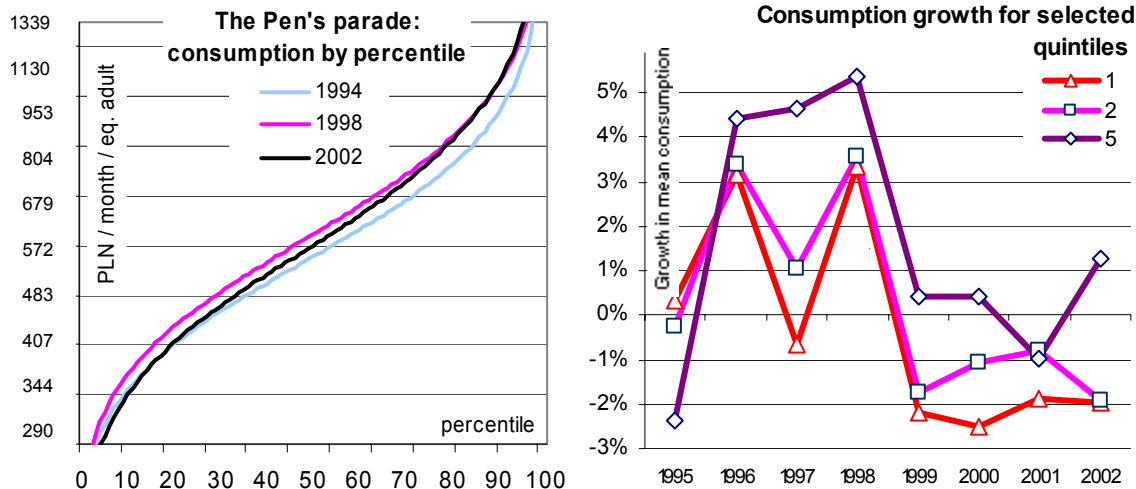
Note: The 2002/1994 change is approx. a sum of 1998 –2002 and 1994-1998.
 Source: Staff calculations based on GUS data..

For further illustrative purposes, one can look at the consumption level and its dynamics at different parts of the consumption distribution. It is interesting to compare mean incomes/consumption across the ranked population. Inverting the cumulative distribution of consumption at a p-th percentile, one can infer consumption levels at this percentile. This line – depicted in the left panel of Figure 6 – is called a quintile function, or, sometimes, a Pen’s parade (Pen, 1971). For example, individuals at the 70th percentile had in 2002 a consumption level of almost PLN750 per month.

The left panel of Figure 6 presents three curves for three different years (1994, 1998, and 2002). Between 1994 and 1998 the line shifted upward almost in parallel, implying a rise in consumption across the entire population. However, between 1998 and 2002 the line generally shifted downward (except for the higher percentiles). The magnitude of this decline was clearly greater for the lower percentiles. The consumption level of the poor returned to, or fell below, its 1994 level. The right panel in Figure 6 presents the same story but from a dynamic perspective. The period 1995-98 was generally favorable for all the consumption groups,⁸ but in 1999 an across-the-board deterioration emerged, with only the top quintiles maintaining a barely positive level of consumption growth (except in 2001).

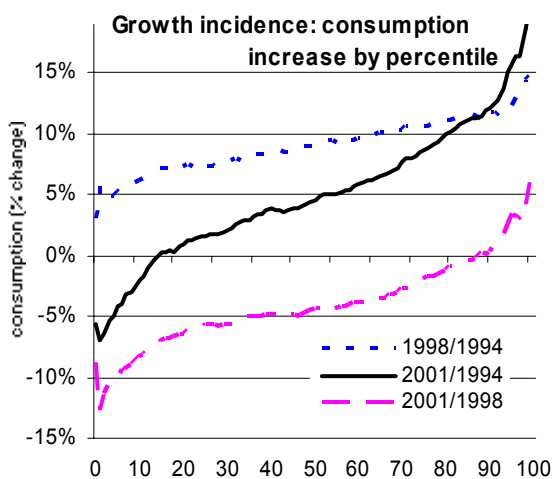
⁸ There could be two explanations for the 1997 performance of the lower quintiles IN 1997: a tightening of social benefits eligibility, and massive flooding in the summer.

Figure 6: Consumption and Growth in Mean Consumption by Percentiles/Quintiles, 1995-2002



Source: Staff calculations based on GUS data.

Figure 7: Growth Incidence Curve



Note: The 2002/1994 change is approximately a sum of 2002/1998 and 1998/1994

Source: Staff calculations based on GUS data.

are (almost) regularly increasing, meaning that inequality has risen at all levels of distribution.

During 1994-98 the curve was above zero everywhere, indicating that poverty has fallen, whatever the poverty line and whatever (reasonable) poverty measure is adopted. Although,

It is straightforward to extend the idea of the Pen's parade to show the change in mean consumption (rather than ITS level) for various percentiles of the consumption distribution during the period of interest. This approach, which uses the so-called growth incidence curve (*gic*), is meant to show how gains from aggregate economic growth are distributed among the population.⁹ Figure 7 shows growth incidence by percentile.

It should be noted that there was almost no change in the consumption level at the 15th percentile between 1994 and 2002. However, the consumption level at the 90th percentile and higher grew by over 10 percent over this period. These results are consistent with what has already been identified. For example, the curves

⁹ Note: The curves should not be interpreted as a growth in consumption of an average p-percentile Mr. X during that period. The cross-sectional character of the exercise implies that the graph rather depicts the difference in mean consumptions of two groups of individuals that happen to be in the same percentile at both ends of the period of interest. We are comparing the poor in year A with the poor in year B, not asking whether they are the same people, thus (leaving aside mobility within the distribution) we underestimate the improvement for individual poor people and overestimate the growth of rich people.

technically speaking, the growth could be described as moderately pro-rich (higher growth at the higher quintiles), it brought significant benefits to the poor as well. During 1998-2002, the situation changed radically: only the highest decile managed to maintain its consumption level and the reduction was hardest for the poorest percentiles.

In addition to the discussed indicators, Ravallion and Chen (2003) derive an intuitive, straightforward index to measure pro-poor growth: it is equal to mean growth (change in consumption) for the poor:¹⁰
$$\gamma_p = \int_0^{\Pi(h)} gic(p) dp / \Pi(h)$$
 where $\Pi(h)$ is a percentile where the poverty line is drawn (equal to the poverty headcount).

This index can then be compared with an average growth to infer whether the growth is pro-poor. Table 4 presents the comparison.

Table 4: Pro-poor Growth

Growth	1995	1996	1997	1998	1999	2000	2001	2002
Average	-0.7%	3.5%	2.1%	4.2%	-0.9%	-0.9%	-1.0%	-1.0%
Pro-poor	0.3%	3.2%	-0.9%	3.2%	-2.1%	-2.8%	-2.3%	-2.1%

Source: Staff calculations based on GUS data.

C. WHAT IS BEHIND THE INCREASE IN CONSUMPTION INEQUALITY?

Changes in inequalities in consumption can be the result of a number of factors. Four important ones are: (i) changes in the distribution of original income; (ii) changes in the progressivity of the tax and benefit system; (iii) changes in the distribution of savings; and (iv) changes in relative prices of the basket of goods bought by households at different points along the income distribution. Unfortunately, the Polish HBS has very limited information on household savings. Thus, the analysis below focuses on the other three factors identified above.

Changes in the Distribution of Original Income and its Components.

Original income refers to the income that the household has before paying taxes and receiving benefits (other than old-age pensions). As shown in Table 5, over the period 1994-2002 inequality in original income, as measured by the Gini coefficient, increased by around 7 percent, from 0.38 in 1994 to 0.41 in 2002. The increase was surprisingly moderate considering the degree of transformation the country had experienced, particularly since it occurred entirely after 1998 with inequality in original income fluctuating around a stable value in the high growth years of 1994-98.

Table 5 also shows the main sources of inequality and the main factors behind the increase. Inequalities in labor income were and remain, a major source of total income inequality. In addition their relative role in overall inequality has increased over time until 2001 (from 70.5 percent to 72.3 percent) although it appears to have declined back to 70 percent in 2002.¹¹ The combination of increased inequality and the growing size of the component attributable to labor

¹⁰ This index, as Ravallion and Chen (2003) note, has an additional desirable property of being based on an “axiomatically appropriate” poverty measure, namely, the Watts index:
$$W = \int_0^{\Pi(h)} \ln(H / c(p)) dp$$

¹¹ The nature of a decline in 2002 is not clear.

income dispersion resulted in a increase in the concentration coefficient for this component income of 8 percent between 1994 and 2002, higher than for overall income and for any other component.

To conclude, an important source of the increase in inequality of consumption over the 1994-2002 period as discussed above can be found in the growth of inequality in original income. The main force behind this increase has been the growth of inequality in labor income, with is reflected in both a higher concentration coefficient for this type of income and the increased role played by this component in the overall measure of inequality.

Table 5: Income Inequality and Decomposition by Income Sources, 1994-2002

Gini Coefficients:	1994	1995	1996	1997	1998	1999	2000	2001	2002
Original Income*	0.379	0.377	0.386	0.395	0.366	0.377	0.395	0.395	0.407
of which:									
Labor income	70.5%	68.9%	70.8%	71.6%	72.1%	73.7%	74.1%	72.3%	69.9%
Old age pension	15.1%	16.5%	15.9%	16.0%	16.4%	16.4%	15.3%	17.8%	18.8%
Income from farm	10.1%	11.6%	9.3%	8.9%	7.6%	6.4%	6.2%	5.7%	6.6%
Other income	4.3%	3.0%	4.1%	3.5%	3.9%	3.5%	4.4%	4.3%	4.7%
Disposable Income**	0.308	0.304	0.312	0.323	0.293	0.298	0.311	0.308	0.317
Concentration Coefficients***:									
Labor Income	0.389	0.382	0.396	0.402	0.377	0.398	0.420	0.414	0.421
Old age pension	0.394	0.408	0.404	0.410	0.380	0.385	0.372	0.407	0.423
Income from farm	0.332	0.358	0.326	0.371	0.290	0.273	0.292	0.287	0.338
Other income	0.307	0.254	0.320	0.289	0.293	0.265	0.304	0.280	0.295

Method: Decomposition of the Gini coefficient into components, ranking by total income.

* Before taxes and benefits.

** After taxes and benefits

*** Household ranked by original income.

Source: Authors' calculations based on HBS.

The Role of Taxes and Social Benefits

While increased inequality in original income is clearly an important component of the dispersion of consumption, it is not the full explanation. As the second part of Table 5 shows, the growth in the Gini coefficient for original income (7 percent) was just over half of the increase in the Gini coefficient for consumption (13 percent). Thus, other factors must be at play. Amongst these factors, of potential importance are changes in the tax and benefit system which, for any given distribution of original income, may affect the distribution of the income that households actually have to spend (i.e., their disposable income).

The top section of Table 6 shows that the concentration index for taxes increased by 32.8 percent in the period 1994-2002, which suggests that the tax burden has become more concentrated. At the same time, the social benefits system evolved toward the poor more strongly. This would suggest that since the mid-1990s changes in the tax and benefit system have counteracted the increased inequality in original income, leading to a much smaller growth of inequality in disposable income (only 3 percent, from 0.308 to 0.316).

Table 6: The Role of Taxes and Social Benefits in Inequality Trends, 1994-2002

	1994	1995	1996	1997	1998	1999	2000	2001	2002
Concentration Coefficients*:									
Taxes	0.311	0.307	0.318	0.328	0.322	0.367	0.386	0.400	0.413
Benefits	-0.270	-0.316	-0.318	-0.334	-0.374	-0.367	-0.371	-0.365	-0.362
Progressivity**:									
Taxes	-0.070	-0.072	-0.071	-0.069	-0.045	-0.012	-0.010	0.002	0.004
Benefits	-0.650	-0.695	-0.707	-0.71	-0.72	-0.746	-0.767	-0.762	-0.771

Method:

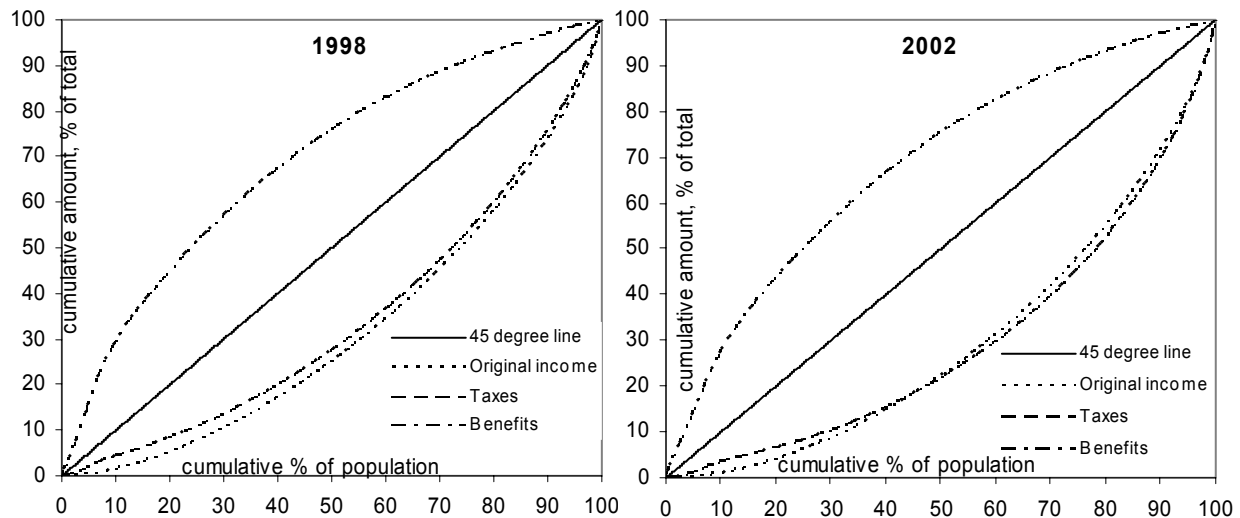
* Household ranked by original income.

** Kakwani index.

Source: Authors' calculations based on HBS.

An alternative way of looking at the effect of fiscal policy on poverty is to consider its redistributive effect. This can be done by comparing the Lorenz curve for original income with the concentration curves for taxes and benefits. Figure 8 compares the redistributive impact of the system in 1998 and 2002. The comparison points to some interesting conclusions. The first surprising result is that in 1998 the concentration curve for taxes dominated the Lorenz curve for original income (i.e., it was above the Lorenz curve for all points in the income distribution). This suggests that the overall tax system was regressive (i.e., that the poor paid more than the better-off as a proportion of their income). However, since the distance between the two curves was very small, the magnitude of the redistribution involved was very limited. In 2002 the situation for the poorest individuals had not changed. The share of taxes that they paid exceeded their share of income, which pointed to a redistribution away from the poor. However, in 2002 the concentration curve for taxes crossed the Lorenz curve, making impossible to derive firm conclusions about the overall level of redistribution.

Figure 8: Progressivity of the Tax and Benefit System in 1998 and 2002



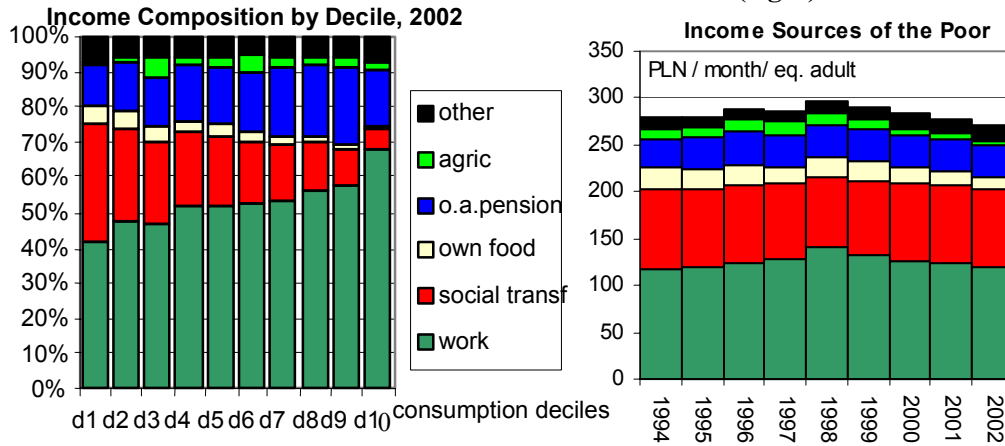
It is in cases like this that it becomes important to use an index of progressivity such as the Kakwani index, which measures (twice) the area between the Lorenz curve for pre-tax income and the concentration curves for tax liabilities and received benefits.¹² Table 6 above gives the values of the Kakwani indexes for taxes and benefits over the period 1994-2002. These values

¹² Kakwani (1977).

confirm the intuitive conclusions derived from Figure 8. In 1994 the Polish direct tax system was slightly regressive but the degree of regressiveness declined over time until the system became slightly progressive in 2001. The benefits system, on the other hand, was always highly pro-poor and grew increasingly so over the period under consideration (the Kakwani index increased by nearly 2 percent). However, much of the change occurred between 1994 and 1998 (an increase of 14 percent).

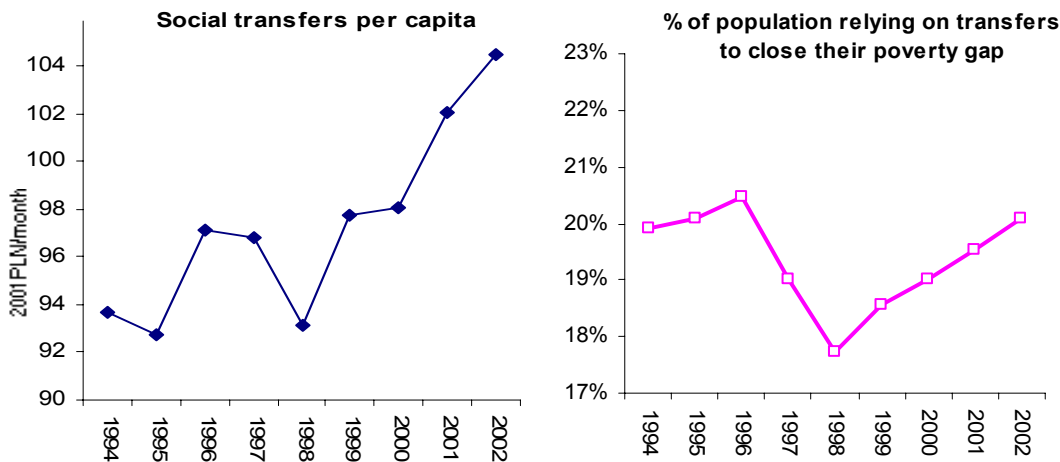
The latter is a most interesting result, as it suggests that households are increasingly dependent on social transfers to finance their consumption expenditures. Although work income is the most important source of financing for expenditures, it clearly varies across the expenditure distribution (see Figure 9). For 2002, its share varies from 41 percent for the first decile to 68 percent for the tenth decile. Even for the bottom quintiles, income from work remains the main source of financing consumption expenditures (see Figure 10).

Figure 9: Comparison of Income Composition: by Decile in 2002 (left) and over 1994-2002 for the Poor (right)



Source: Staff calculations based on GUS data.

Figure 10: Poverty and Social Transfers, 1994-2002

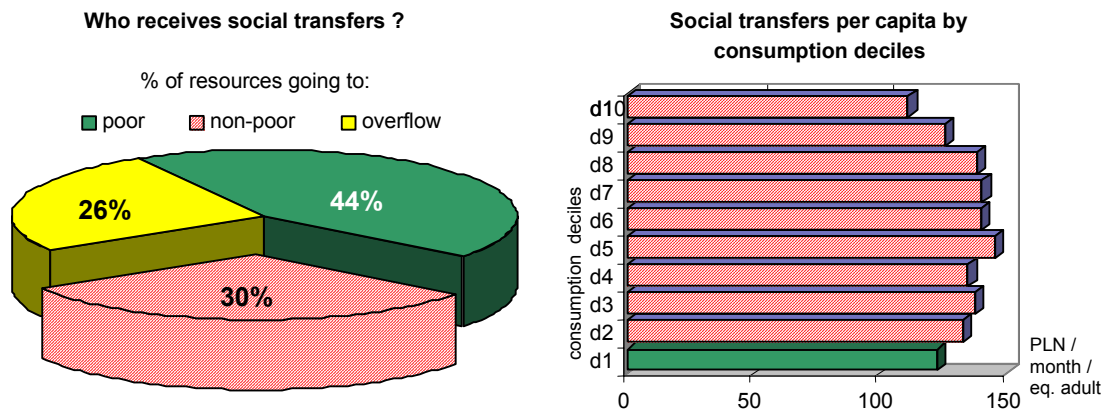


Source: Staff calculations based on GUS data.

However, Figure 10 shows that the number of people relying on social transfers to close their poverty gap increased steadily after 1998, approaching 20 percent in 2002. This means that headcount poverty would have been 20 percentage points higher if social assistance had not been available as a safety net.

Even though social transfers (excluding old age pensions) have a direct poverty reducing effect, the system is extremely costly and inefficient. Calculations based on Household Budget Surveys estimate the total amount of social transfers in 2002 at 6.3 percent of GDP, which is close to what government statistics report. However, 56 percent of this amount (or 3.6 percent of GDP) is not reaching the poor: 26 percent is in excess of the amount necessary to bring household consumption to the poverty line level (called “overflow”), while 30 percent (an equivalent of 2 percent of GDP) goes directly to non-poor households (see the left-hand panel of Figure 11). Although benefit tightening has been tried on several occasions, the amounts leaking were of a similar order of magnitude throughout the analyzed period.

Figure 11: Targeting of Social Transfers (Excluding Old Age Pensions)



Source: Authors' calculations based on HBS

The right-hand panel of Figure 11 illustrates the incidence of social transfers (excluding old age pensions) from an ex post rather than an ex ante perspective and reveals a disturbing pattern: there is very little difference in the actual nominal per capita amount of social transfers across the expenditure distribution. Whatever quintile is evaluated, whether rich or poor, each (equivalent) individual receives on average 120-140 PLN per month. And all deciles except the 9th and 10th receive higher per capita transfers than the poorest decile. If these resources were applied with perfect targeting, rather than being spread more or less uniformly over the distribution, they would be more than double the amount needed to eradicate poverty .

The conclusion, therefore, has to be that Poland has a costly and inefficient system for distributing social transfers; less than half of which serves to bring household consumption up to the poverty line level. A major proportion of these resources is not going to the most needy. However, it might be the case that poverty reduction is not the only objective of this redistribution, i.e. some of the transfers serve an insurance function and are not necessarily designed to improve the well-being of the poorest. Another

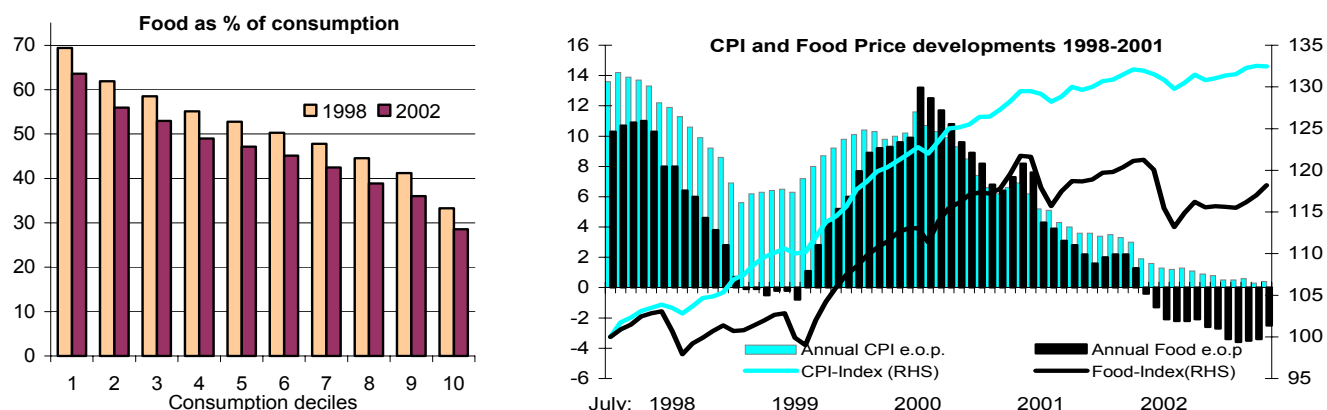
objective – given the even spread of these resources – could be the improvement of the well-being of the “median voter” in order, for example, to win support for government policies and maintain social consensus.

Inflation and Exchange Rate Movements and Expenditure Composition

It should be borne in mind that inflation is a regressive tax, the burden of which is typically borne disproportionately by the poor. For example, the poor tend to hold most of their financial assets, if any, in the form of cash. In addition, when inflation reaches a certain threshold it negatively affects investment and output growth and therefore reduces employment opportunities. The composition of inflation is also frequently regressive: for example, it is well known that food prices often tend to rise faster than the overall CPI – a situation that disproportionately affects poorer households. Large exchange rate depreciations also tend to hurt the poor more than others, as, again, their consumption basket tends to contain a larger component of tradables than that of richer households; moreover, such depreciations normally negatively affect inflation.

The composition of food and non-food expenditures changed somehow between 1998 and 2002 (see the left panel of Figure 12) with every income group spending less of its consumption on food in 2002 compared to 1998. During this period the food price index changed 15 percentage points less than the overall CPI (right panel of Figure 12), indicating that less of one’s income needed to be used to provide for one’s daily bread and butter. Apparently, the income effect outweighs the substitution effect. The divergence in average and food price indexes means that food prices remain important in poverty measurement.¹³

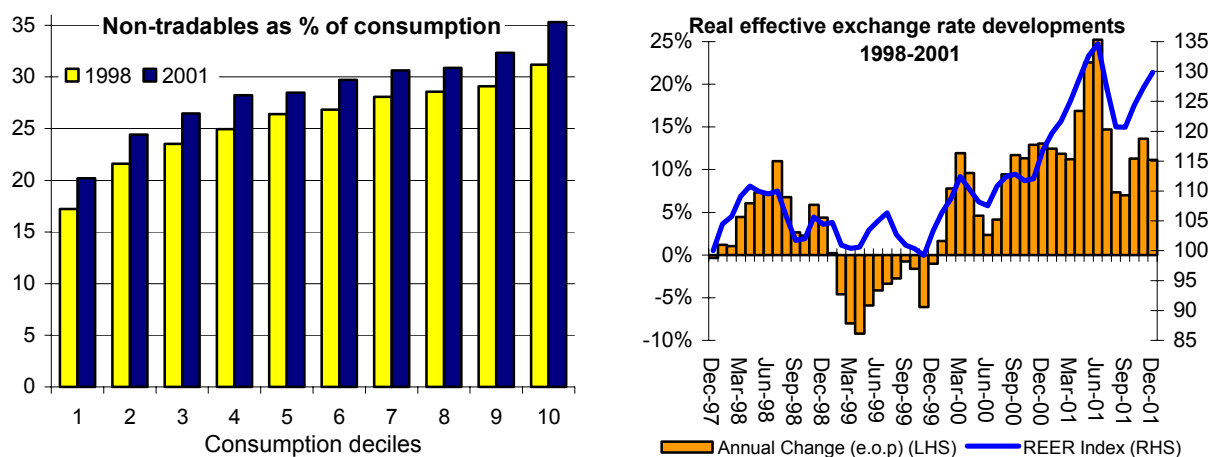
Figure 12: Composition of Food and Non-food Expenditures and CPI and Food Price Developments, 1998-2002



The same situation applies to developments in the real effective exchange rate and the composition of tradables versus non-tradables in each decile’s expenditure pattern (see Figure 13). The appreciation of the zloty during the latter part of the period induced all expenditure groups to spend less on tradables and more on non-tradables, indicating once again that the income effect dominates the substitution effect.

¹³ For further discussion of this issue, see Chapter 3 of Poland Living Standard Assessment, World Bank (2004).

Figure 13: Composition of the Expenditures of Tradables versus Non-tradables and REER Development, 1998-2001



D. POLICY RECOMMENDATIONS

In the first section we argued that macroeconomic stability is a key component of a growth-promoting environment and therefore, is indirectly a foundation for any successful poverty reduction strategy. The link is that macroeconomic stability encourages investment and promotes productivity growth and employment creation. In this sense, macroeconomic stability is a public good. Since the late 1990s Poland's macroeconomic environment has been relatively volatile and, unfortunately, characterized by inappropriate loose fiscal/tight monetary policy mix.

A labor-shedding restructuring of firms that was not matched with an environment conducive to employment creation by the private sector (particularly by small and medium enterprises) on the demand side, as well as unchecked access to social safety nets and the recent baby boom on the supply side, have contributed to a dramatic worsening of labor market conditions, a consequent rise in unemployment, and a resulting increase in poverty.

A return to robust growth (the main factor in poverty reduction) requires a stable macroeconomic environment with a balanced fiscal-monetary policy mix. To prevent the re-emergence of economic imbalances, fiscal consolidation and the reduction of overall deficits are needed to complement the monetary easing since 2000. A parallel reduction in the size of the government budget would provide greater space for private sector development. Together with an additional and necessary redirection of government expenditures from consumption to investment, these policies would significantly strengthen Poland's growth prospects.

In order for growth to be poverty-reducing, the link between economic development and labor market improvement must be strengthened significantly (or perhaps simply re-established). In other words, the growth environment must be made more labor-friendly. In the short to medium term this would involve a necessary reduction in the tax wedge (payroll taxes) as well as an increase in the flexibility of the labor market. In the longer run, policies are needed that will close the mismatch of skills between labor demand and supply, which means promoting investment in human capital and education. Recent World Bank studies, particularly the Public

Expenditure and Institutional Review (World Bank, 2003) and the Labor Market Study (World Bank, 2001), have explored the agenda and the prospects for policy reforms in these areas. Their recommendations are still applicable.

Price stability is an essential component of a poverty reduction policy. Inflation predominantly hurts the poor, who have little opportunity to protect their assets. For this reason, Poland's low inflation in general, and particularly its low food price inflation should be perceived as a genuine achievement of recent years. In addition, the decline in nominal and real interest rates brought about by the monetary easing should work to the advantage of the poor by increasing their capacity to smooth consumption.

Fiscal policy works best if it is pro-poor. Since the poor have a higher propensity to spend, leaving more resources with them during hard times provides an effective tool against cyclical downturns of the economy, contributes to the well-being of the vulnerable, and feeds back positively to overall macroeconomic stability.

The tax component of fiscal policy appears to perform its anticipated stabilization role. Any changes in the system to improve its pro-poor impact should be considered carefully, so that they do not further increase the distortions that taxes bring to the economy, and especially to ensure that they do not increase the overall tax burden. The elimination of exemptions (tax expenditures are directed mainly toward the rich) complemented by an overall reduction in payroll taxes in at least a budget neutral way is a plausible recommendation.

Although Poland's system of social transfers plays an important role in poverty reduction it is more than costly and inefficient. Over half of the resources used is not going to the most needy. If these funds were targeted properly, rather than being spread more or less uniformly over the entire consumption distribution, they could more than eradicate poverty. Therefore, improving the targeting of social transfers is an immediate necessity. Poor targeting not only leaves many of the vulnerable without the help of the state; it also skews incentives to work and poses a significant burden on government finances.

As has been demonstrated, Polish society is still changing. The Polish economy is growing but at the same time becoming more polarized. Therefore, there is a strong case for good poverty/social monitoring that involves going beyond aggregations and applying more complex analytical tools, such as various decompositions, growth incidence, benefit incidence, etc. Such monitoring can provide both the public and policymakers with a better knowledge of whether and how society is changing, and the ability to identify the sources of such changes. It can also make it possible to assess winners and losers, and, in particular, it can become a basis for judging whether current and future inequalities are acceptable. Moreover, an ex ante assessment of the impact of social programs on income distribution and poverty could become a valuable policy tool.

Despite a very modestly positive GDP growth of about 1 percent in 2001 and 2002, poverty has been increasing. In 2003, Poland stands at the threshold of EU accession with all its related challenges and opportunities, while at the same time economic recovery is accelerating. Therefore, actions are required to improve the pro-poor impact of economic growth and to make this growth work for Polish society in general and for its poor in particular.

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