Household incomes in the Czech and Slovak market economies

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Under the Soviet-based system, countries in Central and Eastern Europe were among those with the most equal distributions of income in the world. A greater income inequality was therefore an expected outcome of a transition to a market economy. After 5-7 years of observations on the transition, two models of the process have emerged within the former Soviet bloc: one in Russia and other newly independent states, and another in the Central and East European countries. Russia and the newly independent states have suffered profound and continuous declines in gross domestic product as the centrally planned system disintegrated, government tax revenues plummeted, and weak social safety nets were instituted. In contrast, the Central and East European economies experienced only a brief period of economic decline, followed by growth within a newly introduced market system. Moreover, some governments, including the Czech and Slovak Republics, established relatively strong social safety nets.[1]

Data from the Family Budget Surveys[2] of the Czech and Slovak Republics show that inequality, based on adult equivalent household income,[3] did not change appreciably in the Slovak Republic from 1989, when the two republics operated as one country (before the "Velvet Revolution") to 1993, the first year the country separated into two Republics (the year of the "Velvet Divorce"), 4 years into the transition to a market economy. Also, income inequality in the Czech Republic did not rise to any great extent after the transition. Income inequality in the Czech and Slovak Republics continues to be among the lowest in the world. These countries have created market economies with relatively little increase in income inequality, primarily due to institutional changes in the countries. Jiri Vecernik, using 1988 and 1992 Microcensus survey data, reports a similar trend in income inequality for the two republics.[4]

This report briefly reviews the income policies which may have influenced the distribution of income in the Czech and Slovak Republics during the early years of the transition, and presents some results from a recent study. The focus here is on wage policies, social insurance, the social assistance system, and income taxes. Other factors likely to have affected income distributions include changes in macroeconomic conditions (briefly discussed here), and asset redistribution (not considered here, but discussed in the full article).[5]

Wage policies

In both republics, wage controls were first put into effect in 1991, and then were used intermittently in the ensuing years, with several changes in design. In 1993, the coverage and scope changed: wage controls limited an enterprise's wage bill growth to equal that of the product of the firm's total number of employees at the beginning of the year and the economywide average wage. The effects of wage controls were not clear because fines were not imposed until the enterprise exceeded the wage bill growth norm by 5 percent. Because policy changed often and enforcement was weak, it is unlikely that wage controls had a significant effect on wage growth or wage dispersion.

In 1991, a single minimum wage was established for the two republics. In October 1993, the Slovak government raised its minimum wage to 47 percent of the average economywide net wage, a level higher than that in the Czech Republic. (See table 1.) The minimum wage increase in the Slovak Republic may have mitigated the increase of wage inequality brought about by market forces there, relative to the Czech Republic where the minimum wage was not increased.

Social insurance

Social insurance is primarily composed of unemployment compensation and pensions. Both factors were likely to have mitigated the widening of income distribution in the two republics. Unemployment compensation did not exist in 1989 when there officially was no unemployment,[6] but it played a role in 1993 by replacing part of lost income for 6 months. The eligibility criteria, entitlement, and replacement rates were the same for the two countries in 1993. However, the level of benefits rose for some unemployed persons in the Slovak Republic when the minimum wage was raised. In addition, in both countries, unemployment benefits were not taxed. However, because the benefits were also not indexed for inflation, their value eroded over a spell of unemployment. Unemployment compensation is likely to have played a bigger role in income inequality in the Slovak Republic than in the Czech Republic.

Unlike unemployment compensation, government-designed pensions did exist in 1989. In both 1989 and 1993, men could retire with full pensions at age 60. For women, the retirement age was between 53 and 57, depending on the number of children they raised. In 1989, individuals could draw a pension and work for pay simultaneously and could easily retire early with a full pension. These options were no longer available for Czechs beginning in 1993, when a com-

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prehensive law on pensions was passed. The law introduced a "work or retire" system and limited early retirement to a maximum of 3 years before the legal retirement age. The Slovak Republic did not have such a law in 1993. Because pensions were indexed for inflation in both republics, the average pension maintained its value over the 1989–93 period. Disability pensions were somewhat lower than old-age pensions in each republic, and widows' pensions were only about one-quarter of the average net wage. The changes in the pension system were likely to be countervailing: indexation would likely reduce inequality, but an increase in the number of persons becoming pensioners would likely increase inequality.

Social assistance system

Unlike unemployment compensation, a social assistance system did exist in 1989. Several legal changes were made in the system during the 1991–93 period, resulting in a complex web of legal norms and a variety of benefits. One important thrust of the changes was an increase in the number of means-tested benefits in 1993. Generally, transfers in 1993 were considered means-tested social assistance and nonmeans-tested social aid available primarily to families with children (family benefits).

In 1991, the right was established for everyone to receive "assistance essential for ensuring the basic living conditions." Minimum living standards were set for various types of households and served as a basis for means testing. The minimum living standard for each household was the sum of a personal minimum (based on whether one was an adult or a child) and a household minimum (a function of the number of individuals living in a household). Households could receive a cash benefit equal to the difference in their income and the minimum living standards. Prior to October 1993, the two republics had the same minimum living standards; afterward, the standard in the Slovak Republic rose, a result of the increase in the minimum wage.

The levels of social safety nets can be assessed by comparing the average levels of social assistance, pension, and unemployment benefits with the minimum wage and the average economy-wide net wage in 1993.[7] (See table 1.) Until October of 1993, the relative levels of the safety net were marginally lower in the Slovak Republic than in the Czech Republic. In the first half of 1993, the average person living alone could receive 36 percent of the average net wage as social assistance in the Slovak Republic, versus 41 percent in the Czech Republic. Unemployment benefits were 29 percent of the average net wage in the Slovak Republic and 33 in the Czech Republic.[8] The level of social assistance for large families was higher: an average family of four in the Slovak Republic could receive benefits equal to 109-132 percent of the average net wage; a comparable family in the Czech Republic could receive 129 percent of the average net wage. For low-wage workers in either country, this could be a substantial benefit.

Before 1994, households with children in the Slovak Republic could receive a package of family benefits, regardless of their level of income; a similar package was available before 1996 in the Czech Republic. Social support benefits were not taxable, but there was implicit taxation in that these benefits were included as part of total income of

Table 1. Average monthly net wage and social transfers in the Slovak and Czech Republics, 1993

Characteristic	Slovak Republic				Czech Republic	
	January to September		October to December		January to December	
	Monthly average (Slovak crowns)	Percent of net wage	Monthly average (Slovak crowns)	Percent of net wage	Monthly average (Czech crowns)	Percent of net wage
Gross wage (economywide)[1]	5,264	—	5,264	—	5,459	—
Net wage (economywide)[2]	4,669	100.0	4,669	100.0	4,788	100.0
Social transfers						
Minimum wage	2,200	47.1	2,450	52.5	2,200	46.0
Unemployment benefits:						
Average[3]	1,360	29.1	1,360	29.1	1,585	33.1
Maximum[4]	3,300	70.7	3,675	78.7	3,300	68.9
Minimum living standards for:						
One-member household	1,700	36.4	1,980	42.4	1,960	40.9
Two-member household[5]	2,900	62.1	3,510	75.2	3,500	73.1
Four-member household[6]	5,100	109.2	6,180	132.4	6,170	128.9
Average monthly pension:[7]						
Old-age	2,367	50.7	2,367	50.7	2,799	58.5
Disability	2,247	48.1	2,247	48.1	2,639	55.1
Widow	1,255	26.9	1,255	26.9	1,192	24.9

[1] Excludes small firms with fewer than 25 employees.

[2] Based on calculations (using data from the 1993 Family Budget Survey) of the ratio of average household after-tax income to before-tax income (0.886 in the Slovak Republic and 0.877 in the Czech Republic).

[3] Calculated as: (total amount of benefits paid out in the year/12) /(average number of persons unemployed and receiving benefits in a month).

[4] Maximum for the unemployed who were not taking a retraining course.

[5] Household consisting of two adults.

[6] Household consisting of two adults and two children aged 6 to 9 years and 10 to 15 years.

[7] Average monthly level of pensions for the year.

a household when applying for social assistance. The most important of these benefits are described below.

- *Child allowances* were provided from birth to the end of the child's education. In 1995, the amount of the benefit was a function of the age of the child, ranging from 6 percent (for a child younger than age 6) to 9 percent of the 1993 average gross wage (for a child older than age 15).
- *Parental allowances* provided payments to a parent personally caring full-time for a child up to age 3 (or up to age 7, if the child was handicapped). This benefit was only provided to a non-working parent, except in cases when the net income earned by the parent was less than or equal to the personal minimum living standard. In 1994, the maximum benefit was approximately 26 percent of the average economywide wage.
- *Maternity leave benefits* provided women 28 weeks of paid leave from work. This benefit was a function of the woman's previous wage, with a maximum level. The replacement ratio was reduced from 90 percent in 1991 to 69 percent in 1994, but the maximum level rose from 1.03 to 1.8 times the minimum wage.
- *Maternity and Pregnancy Compensation Benefits* were provided to women who had to move to a lower paying job due to pregnancy or child-care problems.

Taxes

Changes in the tax system were introduced throughout the 1989–93 period. However, in 1993, a new comprehensive tax law introduced two important changes in income taxes for both countries. (Policies concerning taxes which apply to goods and services also changed during this period, but are not discussed in this report.) The new tax system included:

- A more progressive income tax, with rates beginning at 15 percent (for yearly taxable incomes up to 60,000 crowns in both republics), rising to a maximum of 47 percent. Taxable income included wages and salaries, self-employment income, rental income, interest income, and dividends. A taxpayer allowance of 20,400 crowns per year could be deducted and there were exemptions for a spouse and children. Social insurance contributions also became deductible.
- A new payroll-based social insurance tax paid partly by employees and partly by employers. The employee-plus-employer combined rates were 27.2 for pensions, 4.8 for sickness benefits, and 4.0 for unemployment insurance.

The new system explicitly separated the tax for social benefits from the new income tax (in 1989, the tax for social benefits had been part of the wage tax). In their 1995 study, "Tax and Benefit Reform in the Czech and Slovak Republics," C. Heady and S. Smith conclude, "The new income tax plus the payroll taxes paid by employees is more progressive than the old wage tax but [the new income tax] provides smaller child tax allowances. The increased progressivity is a rational response to an expected increase in the degree of pre-tax income inequality, and the reduction in child tax allowances represents a reduction in a level of state support for children that had been very generous by western standards."[9]

Income inequality

How did income inequality in 1989, when the two republics were one country and operated primarily as a command economy, compare to inequality in 1993, when the two republics were separated and had functioned for 4 years under more market-oriented forces? In answering this question, it is helpful to review the macroeconomic condition in relation to income policies. In 1993, market forces may have contributed to the divergence of inequality in the two countries by creating more unemployment in the Slovak Republic and more private sector employment in the Czech Republic. The two governments' wage policies may have had an equalizing effect by not allowing wages to rise more rapidly, and by creating a minimum wage floor. The increase in the minimum wage in the Slovak Republic in 1993 could have improved incomes there relative to incomes in the Czech Republic. The higher minimum wage also implied a higher social safety net in the Slovak Republic, as it raised the minimum living standard and social assistance associated with it. Changes in social insurance are likely to have dampened the rate of growth of inequality in the two countries by protecting the income of pensioners and the unemployed, especially in the Slovak Republic where the incidence of unemployment was higher. Finally, revisions to the tax law may have contributed more to lowering after-tax income inequality in 1993, compared with the income inequality in 1989.

The Gini coefficient was used to measure after-tax income inequality in the two republics. As noted earlier, adult-equivalent household income with person-weighting was used for the analysis. The Family Budget Survey income data are used to show that inequality rose in the two countries by small amounts over the 1989–93 period. In accounting for the small overall increases in inequality over time, decomposition analysis was used to identify two countervailing effects which were likely to have primarily contributed to this result. In particular, the creation of labor markets and self-employment contributed considerably to increases in the Gini coefficients over time. However, government policies, specifically the tax and transfer systems, reduced the income inequality generated by the introduction of the market system.

It is interesting to note that although the overall change in inequality was nearly identical in the two republics, the magnitude of principal offsetting forces was greater in the Czech Republic. These principal forces affected primarily taxes and transfers, and earnings. The relative impact of taxes and transfers differed in the two republics. By 1993, in the Czech Republic, changes in the transfer component contributed more to the reduction in the growth of inequality than changes in the tax component. The reverse was true in the Slovak Republic, where changes in the tax component were more important. The protection of pensioners' incomes was particularly effective, especially in the Czech Republic. However, the introduction of a "minimum living standard" also seems to have mitigated any increase in inequality by augmenting the incomes of the poor. Earnings, in contrast to taxes and transfers, contributed to increases in inequality. Earnings contributed the most to increasing after-tax income inequality in the Czech Republic, relative to the Slovak Republic, over the 1989–93 period. □

Footnotes

[1] This report is based on highlights from Thesia I. Garner and Katherine Terrell, "A Gini Decomposition Analysis of Inequality in the Czech and Slovak Republics During the Transition," *Economics of Transition,* Vol. 6(1), pp. 23–46.

[2] The 1989 and 1993 Family Budget Survey data were collected monthly using diaries. The Family Budget Survey sample design did not account for all households in the countries. A quota design was used with the following social groups sampled, as defined by the work status of the head of the household: workers, employees, the self-employed (in 1993, but not 1989), persons working in agriculture, and pensioner-headed households in which there are no economically active members. A household in which the head was employed at the time of sample selection, but then became unemployed for more than 6 months in a calendar year, resulted in the household being dropped from the sample. Not included at the time of the initial sample selection (as defined in June or so of the preceding year) were the following: households in which the head was a pensioner but in which there were other economically active members, and households headed by unemployed persons. The latter group also included households headed by students and other nonworking persons not receiving a pension or wage. In addition to social group, other selection criteria include the net income per capita for household members, the number of dependent children in economically active households, and the number of members in the pensioner households.

Using weights based on data from the 1988 Microcensus and 1989 Family Budget Survey, households in the Family Budget Survey represented about 95 percent of all households in the Czech Republic and 94 percent in the Slovak Republic in 1989 weights (the weights were created by T. I. Garner and M. Fratantoni, in "Creating Weights for the Czech and Slovak Family Budget Surveys Using Microcensus Data," unpublished data, Washington, D.C., Bureau of Labor Statistics, 1997). Using the 1992 Microcensus data, about 95 percent of Czech households were represented by the 1993 Family Budget Survey sample, compared with only 87 percent of Slovak households. Weights were created using region, social group, and household size. If there were shifts in the population from 1992 to 1993 as defined by these variables, the inequality results could differ. However, based on results from other studies, inequality was increasing in the Czech Republic more than in Slovakia during this period, but the increase was only marginal in both.

[3] Adult-equivalent household income is computed as total household income divided by the number of equivalent adults in the household. We used the scale adjustment factors proposed by the Organization for Economic Cooperation and Development (OECD) to determine the number of equivalent adults in each household. (See *The OECD List of Social Indicators,* Paris, OECD, 1982). The OECD scale factors assign a weight of 1 for the first adult, 0.7 for each additional adult, and 0.5 for each child. Because the focus of the research is the economic well-being of individuals, adult-equivalent income values were allocated to each person in the household. This weighting resulted in the individual distribution, rather than the household distribution, of incomes.

[4] Jiri Vecernik, *Markets and People: The Czech Reform Experience in a Comparative Perspective* (Aldershot, England, Avebury, Ashgate Publishing, Inc., 1996).

[5] See Garner and Terrell "A Gini Decomposition Analysis of Inequality."

[6] For more on the low unemployment rate in the Czech Republic, see Robert J. Gitter and Markus Scheuer, "Low unemployment in the Czech Republic: "miracle" or "mirage,*"* *Monthly Labor Review,* August 1998, pp. 31–37.

[7] Because the minimum living standard and unemployment benefits did not exist in 1989, we could not carry out this comparison for 1989.

[8] In practice, the person would receive his or her unemployment benefit (from the district labor office) and then receive the difference between the minimum living standard and the unemployment benefit as a social assistance benefit (from the social assistance office).

[9] C. Heady and S. Smith, "Tax and Benefit Reform in the Czech and Slovak Republics," Centre for Economic Policy Research Discussion Paper Series No. 1151, March 1995.