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**Unemployment Benefit Systems in Central and Eastern Europe:  
A Review of the 1990s**

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**March 2003**

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# **Unemployment Benefit Systems in Central and Eastern Europe: A Review of the 1990s**

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## **Abstract**

The paper reviews unemployment benefit systems in Central and Eastern Europe in the 1990s. It describes them and analyzes their costs by studying replacement rates, the shares of recipients among the unemployed, and a summary measure of benefit generosity. Moreover, it evaluates their distributive effects (via analyzing data from household income and expenditures surveys) and efficiency effects (via literature review). The evidence shows that unemployment benefits were progressive and that – in countries with broad coverage and sizeable share of benefits in household incomes – they also strongly reduced poverty. The paper also summarizes evidence about work disincentives created by unemployment benefits.

# UNEMPLOYMENT BENEFIT SYSTEMS IN CENTRAL AND EASTERN EUROPE: A REVIEW OF THE 1990s

Milan Vodopivec<sup>\*</sup>, Andreas Wörgötter,<sup>\*\*</sup> and Dhushyanth Raju<sup>\*\*\*</sup>

## 1. INTRODUCTION

One of the most conspicuous consequences of the transition of former socialist economies has been the emergence of large-scale, open unemployment – a phenomenon unheard of before the transition. These economies have thus been confronted with the difficult task of protecting the unemployed while avoiding undue fiscal costs and minimizing work disincentives created by such protection.

Faced with the prospect of high unemployment, many transition economies introduced traditional, OECD-style unemployment insurance programs. The purpose of this paper is to evaluate those programs by examining their distributive and efficiency effects. To address distributive issues (an aspect so far neglected by researchers), we analyze data from household expenditure surveys and try to answer the following two questions: Which groups of workers benefited most? How have these programs changed the pre-transfer distribution of income? To examine efficiency effects, we review the existing literature. The questions that have received the most attention are: Have unemployment benefits created work disincentives? In particular, have more generous replacement rates and longer benefit durations affected the length of unemployment spells? We also examine whether the introduction of unemployment benefit programs has helped to speed up enterprise restructuring. (We found no study that examined the possible positive effects of

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\*\* Mr Woergoetter, OECD contributed to this paper while he was affiliated with the Institute for Advanced Studies in Vienna and the Central European University in Budapest. He expressed his private views which have no official character with respect to his current affiliation.

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unemployment benefit systems – for example, better job matching as reflected by increased reemployment earnings.)

In this study, we would like to shed light on the question of the suitability of traditional unemployment insurance programs for transition economies, including those with poor administrative capacities and low incomes per capita. This concern relates to distributive issues: unemployment insurance benefits may be regressive, that is, mostly paid to better-off workers. Moreover, because of the lack of administrative capacity in these countries, there may be significant “leakage” of these benefits. And unemployment benefits may also hurt efficiency. They may create work disincentives and, by increasing the bargaining power of workers, contribute to higher equilibrium unemployment and increased employment in the informal sector.

The paper is organized as follows. We first describe how the reduction of output translated into the increase of unemployment, and discuss the nature of unemployment in transition countries as it evolved in the first ten years (Section 2). We focus on Central and East European as well as Baltic countries, which constitute a relatively homogeneous group. We emphasize differences in the responsiveness of employment reduction to output decline across these countries, which were undoubtedly at least partly produced by different policy choices. We then describe formal unemployment benefit programs introduced by transition countries (Section 3) and, in the core section, evaluate these systems by presenting their distributive and efficiency effects (Section 4). We conclude with a summary of main findings and a discussion of emerging policy issues.

## **2. UNEMPLOYMENT AND TRANSITION**

Transition reforms have drastically reduced output and severely affected employment.<sup>1</sup> The cumulative GDP decline was about 25-35 percent for Central and Eastern European (CEE) economies and 40-50 percent for the Baltic republics (Table 1). Growth turnaround was first achieved by Poland (1992), followed shortly thereafter by the Czech Republic and Slovenia (1993). With the exception of the Czech Republic, Romania and

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<sup>1</sup> Output decline was predominately related to supply side shocks, and long-standing structural imbalances under the socialist regime (see Holzmann et al, 1995).

Bulgaria, GDP in all countries grew in the late 1990s; still, by 2000, GDP levels surpassed their respective 1989 levels only in Poland (by a substantial 26 percent), Slovenia, Slovakia, and Hungary.

How did the reductions in output affect employment and, ultimately, unemployment? Some countries protected their workers from unemployment by reducing average wages and keeping reductions of the workforce to a minimum even in the wake of output reductions. Another way was through the use of government subsidies to promote early retirement. This section examines how labor market stocks adjusted to the decline of output. It describes both employment responses to output decline, as well as trends in unemployment. It also analyzes the structure of unemployment by duration, age and gender, which has important implications for the design of income support systems for the unemployed.

**Table 1: GDP Index (1989 = 100)**

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Bulgaria	90.9	80.3	74.4	73.3	74.6	76.2	68.5	63.7	65.9	65.9	69.5
Czech R.	98.8	87.4	84.6	85.1	87.8	93.4	96.9	97.2	95.0	95.0	98.1
Estonia	91.9	79.4	68.1	62.0	60.8	63.4	65.8	72.8	75.7	75.7	81.1
Hungary	96.5	85.0	82.4	81.9	84.3	85.5	86.6	90.6	95.2	98.1	101.7
Latvia	102.9	92.2	60.0	51.1	51.4	51.0	52.7	57.2	59.2	60.1	64.2
Lithuania	95.0	89.1	70.1	58.9	53.3	55.2	57.9	62.2	65.4	65.4	67.9
Poland	88.4	82.2	84.3	87.6	92.1	98.6	104.6	111.8	117.1	121.2	126.0
Romania	94.4	82.2	75.0	76.1	79.1	84.7	88.2	82.1	76.1	73.0	74.3
Slovakia	97.5	83.3	77.9	75.0	78.6	84.1	89.6	95.4	99.6	101.4	103.6
Slovenia	95.3	86.8	82.0	84.3	88.8	92.5	95.7	100.1	104.0	107.6	112.5

Source: Central European Countries' Employment and Labour Market Review, EUROSTAT, Theme 3, 1999-1; CANSTAT Statistical Bulletin No.2/2002.

## **2.1 Responses of employment to output reductions**

Reductions of output invariably reduced employment and increased both the number of the unemployed and inactive individuals. But the mode of adjustment differed significantly across countries, both in terms of how strongly employment was affected and which non-employment destinations were chosen. While all countries reduced their employment by less than they reduced their output, there are significant differences among them. Mencinger (2000) estimates that in 1989-97 period, the elasticity of employment to

output was high in Bulgaria, amounting to 0.9; in a medium range of 0.4 to 0.6 in Hungary, Poland, Slovakia and Slovenia; and low in the Czech Republic, amounting to 0.3 (his estimate for Romania is also low but insignificant, and he finds low elasticities for Russia and Ukraine as well).

Why are these elasticities so different? Apparently, some countries used the approach of “job preservation,” that is, of keeping open unemployment low by discouraging labor shedding, thus increasing hidden unemployment. For example, Slovenia used explicit “employment preservation” subsidies to prevent increases in unemployment. Another example is Russia, where in the early transition period, various practices (resulting from peculiar corporate governance) kept unemployment at a low level (see, for example, Gaddy and Ickes, 1999).

Although a thorough evaluation of “job preservation” approaches is outside the scope of this paper, we provide a few comments. While job preservation is appealing from a fairness point of view, it may have serious efficiency consequences. For example, Haltiwanger and Vodopivec (2002) and Vodopivec (2000) find a much faster job reallocation pace and even more favorable outcomes for young workers in Estonia, a well-known radical reformer, than in Slovenia. On a more general level, Caballero and Hammour (2000) show that labor reallocation – the central issue of the transition – can be greatly hampered by poor institutions. Such institutions may reduce cooperation among factors of production and, by favoring some of them over others, contribute to underemployment of the factor which reaps disproportionate gains, impeding technological innovations and job creation. Literature on job creation and destruction also shows that in order for a market economy to function properly, many jobs (perhaps 10 percent of the total stock a year) must be destroyed and new jobs created; and that these newly created jobs are much more productive than those destroyed (see, for example, Davis et al, 1996).

It is important to bear in mind, however, that the analysis of stocks, and even of worker flows independent of their driving forces, cannot be taken as a basis for evaluation of the success of labor market adjustment. Interestingly, Russia’s labor market adjustment in the early 1990s has been praised by Layard and Richter (1994). They point to a high hiring rate as a cause of low inflow into unemployment and to the significant changes in the sectoral

structure of employment. But such a positive evaluation may be reversed once the extremely low job creation rates of Russia are taken into account (see Acquisti and Lehmann, 1998). Indeed, the rate of unemployment is not a good proxy for the scale of worker and job reallocation: the same rate of unemployment is consistent with very different labor market characteristics, and thus, with a dynamic or a static labor market (see Blanchard and Portugal, 1998, for the comparison of the U.S. and Portugal). Moreover, note that large worker flows do not necessarily mean that labor is being reallocated – that is, that jobs are being destroyed in one firm or sector and created in another. Undoubtedly, developments on the job creation and job destruction front are crucial for evaluating the success of labor reallocation in transition economies.<sup>2</sup>

## ***2.2 Responses of unemployment to employment reductions***

Above we showed that the output decline led to substantial reductions in employment – were these reductions absorbed by increases in unemployment or in inactivity, or both? Interestingly, there are considerable differences in the intensity of the use of each channel across transition economies. In some, adjustment affecting unemployment has been less intense: for example, in the Czech Republic, Estonia, and Hungary, unemployment increased by 27 to 42 per reduction of employment by 100. In contrast, the reduction of employment by 100 resulted in a much larger increase in unemployment in some other transition economies – by 85 in Poland, by 75 in Bulgaria, and by 66 in Slovakia (Blanchard, 1997, p.11). In Slovenia, there has been virtually no increase in survey unemployment (but registered unemployment increased by 44 per reduction of employment by 100 over the period 1990-2001).

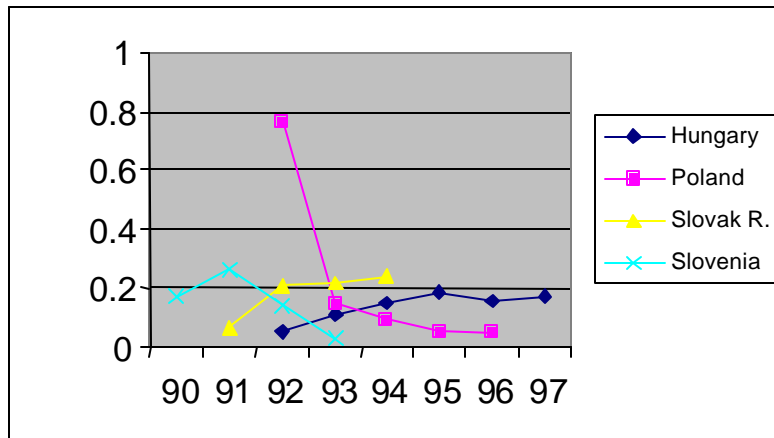
The ability to channel redundant workers to inactivity depended partly on the scale of adjustment; obviously, small adjustments could have been achieved by regular outflows from the labor market. But outflows to inactivity were undoubtedly partly policy driven: some countries tried to avoid unemployment by sponsoring early retirement or allowing more

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<sup>2</sup> There is a substantial (and growing) amount of literature on this topic: see Acquisti and Lehmann (1998) for evidence on Russia; Bilsen and Konings (1998) on Bulgaria, Hungary, and Romania; Bojnec and Konings (1998) on Slovenia; Haltiwanger and Vodopivec (2002) on Estonia, and Konings, Lehmann, and Schaffer (1996) on Poland.

workers to withdraw from the labor market by claiming disability benefits. As shown in Figure 1, Poland, Hungary, Slovakia and Slovenia have spent considerable resources on promoting early retirement (in 1992, their expenditures on early retirement reached 0.8 percent of GDP). As we show below for Slovenia, the early retirement route, however, proved both fiscally expensive as well as ineffective as far as promoting the employment of young workers.

**Figure 1: Expenditures on Early Retirement (as percent of GDP)**



Source: Employment Outlook, OECD, various issues, Yearly Work Report of Employment Office of Slovenia, various issues.

**Experience with early retirement: the case of Slovenia.** To protect workers from the increased hardship brought about by transition reforms -- and possibly to “make room” for the employment of young workers -- the Slovenian government subsidized early retirement. Women qualified for early retirement at the age of 50, and men at the age of 55, five years before their respective regular retirement ages. Those who qualified had to have sufficient years of service and buy missing pension credits – at a price that had no relation to the actuarially fair price. As a rule, employers paid the missing pension credits for early retirees, and the government compensated employers for about 50 percent of the costs.

Early retirement was certainly a good deal for workers: pension levels for early retirees were only slightly reduced (by one percentage point of full pension for each missing year of pension credits), with the reduction effective only until reaching normal retirement age. In

addition, pension levels for newly retired workers tended to be better protected from inflation than were wages, and for some groups of workers, pension levels at retirement even exceeded wages received immediately before retirement.

It thus comes as no surprise that the early retirement policy was very effective. The proportion of those employed at the beginning of the year who retired during the year rose significantly in both 1990 and 1991. For example, the proportion of women with 30-34 years of experience who retired during the year increased from 0.164 in 1989 to 0.425 in 1990 and 0.40 in 1991 (see Orazem and Vodopivec, 1995). The story for men is the same, but with a five year lag. The sharp increase began five years earlier in the experience profile for women than men, coinciding with the five year difference in minimum age and experience requirements for the receipt of pensions. This produced dramatic employment reductions for workers in the highest experience groups (measured by the length of total employment), accompanied by equally dramatic wage increases for persons of these groups who remained working. By 1992, employment of males with 30-34 years of experience fell to 72 percent of the 1987 level, while employment for those with 35 or more years of experience fell to 33 percent of the 1987 level. Similar reductions were seen with women's employment, but they began five years earlier, at 25-29 years of experience.

Apart from being expensive, the early retirement program failed to "make room" for the employment of young workers. The share of workers under the age of 20 fell from 3-4 percent in the late 1980s to 1.5 percent in 1992 (Vodopivec, 2002). Estonia offers a sharp contrast: although the government did not sponsor early retirement (and pensionable age was even increased early in the transition), the share of employed workers under 20 years increased early in the transition (from 3.1 in 1989 to 3.5 in 1993). Obviously, employment opportunities of young workers are affected by other, much more powerful forces than those induced by early retirement – the forces connected with job creation in general.<sup>3</sup> In fact, if

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<sup>3</sup> Employment protection legislation -- the Slovenian one being much stricter than the Estonian one -- is a plausible candidate to account for job creation and destruction. Namely, the model of Blanchard (1998) shows that higher employment protection costs lead to impaired access to jobs for marginal groups of workers (productivity of these workers before hiring is not easily revealed and therefore their probability of being hired in the presence of large firing costs is lower).

younger workers are complements for – and not substitutes of – older workers, early retirement programs may have a negative effect on the employment of young workers.

### **2.3 The surge of unemployment**

Perhaps the most dramatic development in the labor market of transition economies has been the emergence of large-scale unemployment. Below we examine the evolution of overall unemployment as well as its structure by age, gender, region, and duration of unemployment spells. From an income support perspective, not only the level, but also the structure of unemployment is of interest: different groups may have different escape rates from unemployment, and, hence, may require specific policy responses.

**Survey unemployment.** Labor force surveys show persistent and, in some countries, very high levels of unemployment (Table 2).<sup>4</sup> With a few exceptions (the Czech Republic, Slovenia, and Romania), unemployment rose to double digit levels. In countries with a large initial increase, unemployment started to fall in the second half of the 1990s (but in Poland and Slovakia, it then again increased by 2000).

**Table 2: Unemployment Rate (Labor Force Surveys)**

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Bulgaria			21.4	20.5	14.7	13.7	15.0	16.0	14.1	18.7
Czech R.			3.9	3.8	4.1	3.9	4.8	6.5	8.5	8.8
Estonia	1.5	3.7	6.5	7.6	9.7	10.0	9.7	9.6	11.8	13.5
Hungary		9.3	11.9	10.7	10.2	9.9	8.7	7.8	7.0	6.6
Latvia					18.9	18.3	14.4	13.8	13.9	14.4
Lithuania				17.4	17.1	16.4	14.1	13.5	10.4	15.9
Poland		13.7	14.9	16.5	15.2	14.3	11.5	10.6	12.6	16.6
Romania				8.2	8.0	6.7	6.0	6.3	6.9	7.7
Slovakia			12.2	13.7	13.1	11.1	11.6	11.9	16.0	19.1
Slovenia	7.3	8.3	9.1	9.0	7.4	7.3	7.4	7.9	7.5	7.1

Source: Same as Table 1.

<sup>4</sup> We rely on survey data, because data on registered unemployment is likely to be distorted. There are numerous country specific incentives to register which invalidate cross-section comparisons, and these incentives may vary through time, which also makes comparisons through time unattractive.

Evidence suggests that a significant increase in unemployment in a transition economy can be postponed, but not avoided. The Czech Republic, for example, initially kept unemployment low, but in the second half of the 1990s struggled with the consequences of postponed microeconomic restructuring and excessive income increases. Similarly, the relatively low unemployment of Romania largely reflects a lack of enterprise restructuring and labor hoarding.

**Registered unemployment.** Most of the transition countries experienced a rapid increase in the registered unemployment rate to two digit levels (Table 3). While in some countries the rates in the second half of the 1990s started to decline (Hungary, Latvia, Romania, and Slovenia), in some others they grew throughout the 1990s (the Czech Republic, Lithuania and Estonia).

**Table 3: Registered Unemployment Rate**

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Bulgaria	11.1	15.3	16.4	12.8	11.1	12.5	13.7	12	14.1	20.8
Czech R.	4.1	2.6	3.5	3.2	2.9	3.5	5.2	7.5	8.4	8.8
Estonia			5.0	5.1	5.0	5.5	4.6	4.7	6.7	6.6
Hungary	7.4	12.3	12.1	10.4	10.4	10.5	10.4	9.1	9.7	9.0
Latvia	0.6	3.9	8.7	16.7	18.1	19.4	14.8	13.8	10.7	9.3
Lithuania	0.3	1.3	4.4	3.8	6.2	7	5.9	6.4	7.7	11.4
Poland	11.8	13.6	16.4	16.0	14.9	13.2	10.5	10.4	12.7	14.4
Romania	3.0	8.2	10.4	10.9	9.5	6.6	8.8	10.3	9.2	8.9
Slovakia			12.2	13.7	13.1	11.1	11.6	11.9	18.9	20.6
Slovenia	8.2	11.5	14.4	14.4	13.9	13.9	14.4	14.5	11.6	10.3

Source: EBRD, Transition Report 1999, Employment and Labour Market in Central European Countries 2001/2, EUROSTAT, Theme 3, 2001.

It seems that the generosity of benefits affects the rate of registration of the unemployed at employment offices. For example, in Estonia, where the level of benefits until 2003 was extremely low, the registered unemployment rate was much below the survey rate of unemployment. In contrast, Slovenia seems to have introduced the opposite

incentives.<sup>5</sup> The rate of registered unemployment remained fairly steady during 1995-98 at around 14 percent – the highest registered level of unemployment in the 10 transition countries in our sample and 6-7 percentage points above the survey rate of unemployment, but it seems that the 1998 reform of unemployment benefit program and stricter monitor of non-recipients helped to reduce the number of registered unemployed in the post-1998 period. The discrepancy between the survey and register numbers is attributable mainly to the group of registered unemployed who are not considered unemployed according to survey criteria. In 1999, more than half of the registered unemployed did not qualify as unemployed by survey criteria, 70 percent of them because they did not actively search for a job (Employment Office of Slovenia, 2000).

#### ***2.4 Structure of unemployment***

What are the demographic and other characteristics of the unemployed? Given their low mobility, how many of them are long-term unemployed? Are young and old workers disproportionately represented among the unemployed? What is the share of women among the unemployed? How high are regional disparities in unemployment rates? All these aspects have an important bearing on the design of income support programs for the unemployed.

**Long-term unemployment.** Apart from the high levels of unemployment, long-term unemployment has also become a serious problem across many European transition economies. During the period 1993-2000, the share of the long-term unemployed ranged from a third to more than half, and this share in the majority of countries increased in the late 1990s (Table 4).

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<sup>5</sup> In Slovenia, incentives to register are very diverse. As in other countries, registration is a prerequisite for the receipt of unemployment insurance benefits (which consists of cash payments and payments of social security contributions for old-age and health insurance) and of employment office services (counseling, training, and employment subsidies). But in Slovenia, registration at the employment office also brings protection from layoffs for a working spouse; reimbursement of moving expenses connected with reemployment; eligibility for health care services after unemployment insurance eligibility expires; advantages in accessing social housing; ability to enroll in evening post-elementary education (only day-time enrollment is permitted otherwise); subsidies for child care and eligibility for child allowances; and eligibility for voluntary old-age insurance. In addition, newly declared disabled persons waiting to be positioned to new working places that correspond to their disability also have to register with employment offices (in early 2000, they constituted about 10 percent of all registered unemployed).

**Table 4: Shares of Long-term Unemployed\***

	1993	1994	1995	1996	1997	1998	1999	2000
Bulgaria	53.8	60	65.6	59.9	57.6	54.4	58.3	53.0
Czech R.					27.6	29.5	36.6	50.0
Estonia	28.1	39.6	31.8	55.3	45.8	45	42.2	47.3
Hungary	32.2	41.3	45.6	49.8	46.5	44.3	47.9	47.9
Latvia						56	53.0	55.9
Lithuania						38	38.8	52.4
Poland	33.5	38.6	40.5	40	39.1	37.9	41.6	44.6
Romania					44.3		45.2	49.2
Slovakia	30.2	41.6	53.1	52.7	51.1	49.7	47.6	54.7
Slovenia	54.8	62.1	59.0	53.8	59.6	57.1	41.8	62.7

Source: Central European Countries' Employment and Labour Market Review, EUROSTAT, Theme 3, 1999-1; OECD: Country Surveys, Economic Outlook; Employment and Labour Market in Central European Countries 2001/2, EUROSTAT, Theme 3, 2001.

\*Unemployment duration exceeding 12 months.

One of the reasons for the high increase in the proportion of long-term unemployed workers has been the low probability of transition from unemployment, particularly to employment. Boeri (1996) shows that this probability is much lower in transition than in OECD countries. Individuals who become unemployed may encounter a host of factors which act to lower the probability of transition from long-term unemployment, particularly to employment. Labor shedding unmatched by sufficient job creation contributed to a higher incidence of long-term unemployment in all economies; in addition, generous unemployment benefits may have played a role in some of them as well (see below). A large proportion of the long-term unemployed are relatively unskilled workers (European Commission, 1999).

**Structure of unemployment by age.** Young workers faced more serious impediments in securing and maintaining employment than other groups of workers, including those over 55 years of age. For all countries, the unemployment rates for youth, that is, for those individuals below 25 years of age, were substantially higher than the average unemployment rates (compare Tables 2 and 5), with the trends in the two being quite similar. The Czech Republic was the only country that had single digit youth unemployment rate till 1997, but it increased to 17 percent by 2000. In line with the falling average unemployment rates in the second half of the 1990s, the youth unemployment rate in Hungary, Romania and Slovenia was also falling. The countries with the most severe youth unemployment problem in 2000 were Bulgaria, Poland, and Slovakia.

**Table 5: Youth Unemployment Rates\***

	1993	1994	1995	1996	1997	1998	1999	2000
Bulgaria	47.0	44.9	37.7	33.5	36.0	36.0	31.3	39.4
Czech R.		7.7	7.9	7.2	8.6	12.4	16.6	17.0
Estonia	11.0	11.6	14.1	16.0	14.4	14.5	22.1	23.7
Hungary	21.3	19.4	18.6	18.0	15.9	13.5	12.3	12.3
Latvia			30.1	29.0	24.9	27.1	23.4	21.2
Lithuania		32.1	31.6	27.4	26.2	22.9	21.3	27.5
Poland	30.0	32.5	31.2	28.5	24.8	23.3	29.6	35.7
Romania		22.5	20.6	20.2	18	18.3	17.3	17.8
Slovakia	25.7	27.6	24.8	20.6	22.4	23.5	32.0	36.9
Slovenia	24.2	22.2	18.8	18.8	17.6	18.3	18.5	16.4

Source: Same as Table 1.

\* Unemployment rates of workers below 25 years of age (according to labor force surveys).

The share of unemployed workers older than 55 years in total unemployment has been low (see Table 6). In all countries of our sample except Latvia, this share has been below 10 percent throughout the 1993-2001 period, and several countries have managed to keep this share below 5 percent (Hungary, Poland, Romania, Slovakia and Slovenia).

**Table 6: Shares of Unemployed Older than 55 in Unemployment**

	1993	1994	1995	1996	1997	1998	1999	2000	2001
Bulgaria	6.6	5.9	4.5	4.2	3.8	5.0	4.6	5.4	7.9
Czech R.	8.2	6.8	6.3	8.5	6.4	5.4	5.3	5.3	5.7
Estonia	6.0	7.6	8.2	8.2	7.8	7.6	7.5	8.8	9.6
Hungary	5.2	4.5	3.1	3.4	4.1	3.9	2.1	3.0	3.6
Latvia			16.6	11.3	9.1	8.2	7.2	8.8	11.5
Lithuania					4.7	4.9	5.0	7.7	7.6
Poland	4.4	3.7	3.8	3.8	3.8	4.4	4.7	4.0	3.6
Romania		1.6	1.9	1.1	1.0	0.9	0.9	1.3	1.6
Slovakia		3.2	2.7	3.0	2.6	3.0	2.8	3.1	3.1
Slovenia*	3.5	4.5	4.2	5.3	2.4	2.1	2.8	4.4	4.9

Source: ILO, LABORSTA, National Statistical Offices of Estonia and Slovenia.

\*Low reliability because of the small proportion of individuals older than 55 in the sample.

**Structure of unemployment by gender.** In most countries, the unemployment rate for women is higher than for men, with the notable exception of Hungary where the female unemployment rate was consistently and significantly below the male unemployment rate between 1993-1998. Slovenia, Estonia, and Latvia also reported, at times, lower female unemployment rates than for males (European Commission, 1999). But *women's share in*

*unemployment* in most countries is lower than men’s (except in the Czech Republic and Poland). The lowest women’s share is in Hungary, with around 40 percent (Table 7).

**Table 7: Share of Women in Unemployment**

	1993	1994	1995	1996	1997	1998	1999	2000
Bulgaria	48.3	47.0	48.1	47.4	47.8	47.0	46.7	46.0
Czech R.	55.9	53.7	52.9	52.7	54.6	56.5	53.2	53.6
Estonia	47.7	49.0	42.7	43.9	45.4	43.3	42.5	41.3
Hungary	39.1	43.3	37.2	39.1	38.6	39.5	40.1	39.3
Latvia			44.3	45.6	48.5	48.4	45.7	44.8
Lithuania					47.1	44.0	43.2	41.4
Poland	51.3	51.2	50.9	51.8	54.0	53.3	49.2	52.0
Romania		49.7	49.6	49.5	48.5	44.1	41.6	43.0
Slovakia	43.8	46.0	46.9	50.7	49.0	47.3	45.4	44.7
Slovenia	42.3	43.5	44.3	44.9	48.6	46.8	47.1	47.0

Source: Same as Table 1.

In summary, the low propensity of the unemployed to take jobs has produced a stagnant pool of unemployed, with a large share of long-term unemployed. Among the unemployed there is also a disproportionate share of young workers. Due to a loss of earnings, the unemployed may experience a sharp decline in their consumption expenditure, particularly if they are not compensated for this loss. We focus on income support programs in the rest of the paper.

### **3. INCOME SUPPORT PROGRAMS FOR THE UNEMPLOYED**

Prior to the transition, “open” unemployment in East European countries – with the exception of Yugoslavia – was virtually non-existent. Consequently, at the beginning of the transition, income support programs for the unemployed were unavailable.<sup>6</sup> In all countries, the network of employment offices existed, but these offices primarily focused on labor exchange for employed workers and were unprepared to offer services for large numbers of unemployed.

Anticipating the emergence of widespread unemployment, in the early 1990s (as early as 1989 in Poland), all transition countries enacted legislation for the provision of income support for the unemployed, using the West as their blueprint. This income support included

unemployment benefit and social assistance programs, as well as active labor market programs ranging from training to subsidized employment programs to labor-intensive public works programs. From the incipient stages, both unemployment benefit and social assistance programs have undergone several, often radical reforms largely aimed at curbing expenditures in the face of an upsurge in unemployment and severe fiscal constraints, as well as to reduce the work disincentives created by such programs. Reforms commonly comprised of tighter eligibility requirements for the receipt and maintenance of benefits, and a reduction in the length of the maximum potential duration of entitlement.

In this section, we first describe the rules of these systems in transition economies and discuss issues arising in their implementation. We then discuss the costs of these systems and compare them to the costs of unemployment benefit programs in OECD economies.

### ***3.1 Description of income support systems for the unemployed***

Below we focus on unemployment benefits as they are the primary program of income support for the unemployed, but we also discuss social assistance as an increasing number of the unemployed participate in this program as well.

#### **Unemployment benefits**

Similar to most OECD countries, unemployment benefit programs in transition countries are typically mandatory and cover the majority of employed persons, irrespective of industry or occupation (the most notable exception being the self-employed). Benefit levels are earnings-related and the duration of entitlement is tied to previous employment history, but at the same time, benefit floors ensure that the benefits of those at the bottom of the wage distribution do not fall beneath an officially determined minimum. In addition, as a significant deviation from the insurance principle, some special groups such as school leavers (in the Czech and Slovak Republics, Estonia, Poland, and Romania) and others are entitled to benefits at fixed rates (Boeri, 1997). Moreover, after eligibility to earnings-related benefits under unemployment insurance expires, the unemployed may continue to receive benefits under a means tested follow-up program called unemployment assistance. Because it pays a

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<sup>6</sup> The exceptions were Yugoslavia, where unemployment insurance existed since the early 1970s, and Hungary, where benefits were offered to redundant workers dismissed in mass layoffs since 1986 (Boeri, 1997).

flat rate and is financed from general revenues, Estonia's program was sometimes classified as unemployment assistance (Vroman, 2002).<sup>7</sup> Some of the salient institutional features of unemployment benefit systems of transition countries are detailed below (they are summarized in Table 8)

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<sup>7</sup> In one of the most radical reforms implemented by a transition economy, Estonia substantially revamped its benefit program in 2001, and the first unemployment benefits under the new regime were paid out in January 2003. The program introduced a proper, mandatory public unemployment insurance scheme financed from contributions by workers and employers. It is expected that under the new program unemployment benefits will increase by several times, particularly for better paid workers (in contrast to the flat-fee rate of the previous program, the new benefits are earnings-related).

**Table 8: Main Features of Unemployment Benefit Systems in CEEC  
(Latest Legislation in Bold)**

	Date	Reference period	Required min employment record	Max duration of benefits	Relation to individual's gross earnings	Unemployment benefit levels (minimum and maximum, expressed in % of minimum wage)
<b>Bulgaria</b>	1989	12 months	6 months	6 months <sup>a</sup>	100% of last monthly wage for first month, then 10% less for next 5 months <sup>b</sup>	100% <sup>c</sup>
	1991	12 months	6 months	12 months	Equal to minimum wage	
	1992	12 months	6 months	12 months	60% <sup>d</sup>	90%                      140%
	<b>1998</b>	<b>12 months</b>	<b>9 months</b>	<b>12 months</b>	<b>60%<sup>d</sup></b>	<b>85%</b> <b>140%</b>
<b>Czech R.</b>	1991	3 years <sup>e</sup>	12 months	12 months	60% first 6 months 50% following 6 months (70% in case of retraining course)	none, but 70% of minimum living standard (MLS) if not employed before
	1992			6 months	60% first 6 months 50% following 6 months (70% in case of retraining course)	none, but 70% of 150-180% <sup>f</sup> minimum wage if not employed before
	1996	3 years <sup>e</sup>	12 months	6 months	60% first 6 months 50% following 6 months (70% in case of retraining course)	none, but 70% of 150-180% of MLS <sup>f</sup> MLS if not employed before
	<b>1998</b>	<b>3 years<sup>e</sup></b>	<b>12 months</b>	<b>6 months</b>	<b>50% first 6 months</b> <b>40% following 6 months</b> <b>(60% in case of retraining course)</b>	<b>none (but 70% of 150-180% of MLS<sup>f</sup> MLS if not employed before)</b>
<b>Estonia</b>	1991	12 months	180 days	6 months	Flat rate, determined as 60% of minimum wage	
	1995	12 months	180 days	6 months (3 months extensions considered on individual basis)	Flat rate, determined as 60% of minimum wage	
	<b>2001 (effective 2003)</b>	<b>24 months</b>	<b>12 months</b>	<b>12 months</b>	<b>50% in the first 100 days, of the receipt, 40% thereafter</b>	<b>40% of the average wage                      150 percent of the average wage</b>

**Table 8: Main features of unemployment benefit systems in CEEC (cont'd)**  
(latest legislation in bold)

	Date	Reference period	Required minim employment record	Maximum duration of benefits	Relation to individual's gross earnings	Unemployment benefit levels (minimum and maximum, expressed in % of minimum wage)	
<b>Hungary</b>	1989	3 years <sup>e</sup>	18 months	24 months <sup>g</sup>	70% first 6 months 60% following 6 months 45% following 12 months	80% since 1990i	300%
	1991	4 years	360 days		70% first half of entitlement period 50% second half period	100%i	
	1992				70% first half of entitlement period 50% second half period	none	200%
	1993	4 years	90 days	360 days	70% during phase I 50% during phase IIh	8600 fiorints	18000 fiorints during phase I 1500 fiorints during phase II
	<b>1997</b>	<b>4 years</b>	<b>90 days</b>	<b>360 days</b>	<b>65%<sup>h</sup></b>	<b>90% of minimum old-age pension</b>	<b>180% of minimum old-age pension</b>
<b>Latvia</b>	1993			6 months	90% of minimum wage (70% for new entrants)	70 % of minimum wage	140 % of minimum wage
<b>Lithuania</b>	1993			6 months	70 % , later reduced to 60 % and 50%		
<b>Poland</b>	1989	None	None	None	70% first 3 months 60% following 6 months 45% after 9 months	100%	average wage
	1992-94	1 year <sup>j</sup>	180 days <sup>j</sup>	12 months 2 years in exceptional cases	36% of national average wage	none	none
	<b>1997</b>	<b>18 months</b>	<b>1 year</b>	<b>18 months</b>	<b>flat rate amount paid at 378,2cz</b>	<b>none</b>	<b>none</b>
<b>Romania</b>	1996	1 year	6 months 1 year	9 months	50-60% for 9 months	75-80%	200%
	<b>1998</b>	<b>1 year</b>	<b>1 year</b>	<b>9 months<sup>k</sup></b>	<b>50-60% for 9 months</b>	<b>76-92%</b>	<b>210%</b>

**Table 8: Main features of unemployment benefit systems in CEEC (cont'd)**  
(latest legislation in bold)

	Date	Reference period	Required minimum employment record	Maximum duration of benefits	Relation to individual's gross earnings	Unemployment benefit levels (minimum and maximum, expressed in % of minimum wage)	
<b>Slovak R.</b>	1991	3 years	12 months	12 months	65% first 6 months 60% following 6 months 70% during retraining	none	None
	1992			6 months	65% first 6 months 60% following 6 months 70% during retraining	45% <sup>l</sup>	150-180% <sup>f</sup>
	1995	3 years	12 months	12 months	60% first 3 months 50% following 9 months	nonem	150%
	<b>1997</b>	<b>3 years</b>	<b>12 months</b>	<b>12 months</b>	<b>60% first 3 months</b> <b>50% following 9 months</b>	<b>nonem</b>	<b>150%</b>
<b>Slovenia</b>	1996	18 months	9-12 months	24 months	70% first 3 months 60% following 3 months <sup>o</sup>	80% <sup>p</sup>	320% <sup>p</sup>
	<b>1998</b>	<b>18 months</b>	<b>9-12 months</b>	<b>24 months</b>	<b>70% first 3 months</b> <b>60% following 3 months<sup>o</sup></b>	<b>100%</b>	<b>300%</b>

<sup>a</sup> Plus an additional three months of unemployment assistance.

<sup>b</sup> Unemployment insurance equal to the minimum wage plus 20% of the difference between the average wage and the minimum wage

<sup>c</sup> Since October 1990.

<sup>d</sup> Average of last six months' wage; an additional 15% is awarded upon completion of a training course.

<sup>e</sup> Not required if enrolled in a training course.

<sup>f</sup> The recipient receives 180% if enrolled in a training course.

<sup>g</sup> One year until January 1990 when it was extended to two years.

<sup>h</sup> Unemployed earning from casual work not more than half of the minimum wage per month remain entitled to full UI

<sup>i</sup> If previous earnings were less than minimum wage then the benefit is set equal to previous earnings.

<sup>j</sup> Introduced in September 1990.

<sup>k</sup> Some of the unemployment benefit exhaustees (after 9 months) qualify for a SUPPORT ALLOWANCE PROGRAM for an additional (maximum) 18 months. This program is means tested, <sup>a</sup>nd the level of allowance is 60% of the level of unemployment benefit they initially receive

<sup>l</sup> Minimum applies only to first time unemployed and school leavers and is paid for a period of six months.

<sup>m</sup> Net monthly wage if lower than the minimum pension income.

<sup>n</sup> First three months paid at 70%, then remaining months paid at 60% of average wage.

<sup>o</sup> Recipients can receive a supplement for each family member to raise the average income per family member to 80% of the gross min wage.

<sup>p</sup> As a percentage of the guaranteed minimum wage.

Sources: Employment Observatory, no 8, OECD Short-term Economic Indicators. Sources and Definitions, national labour ministries; Rutkowski (1996), Micklewright and Nagy (1996), Terrell, Erbenova and Sorm, (1996), Vodopivec (1995), Lubvyova and Ours (1996), Kwiatkowski (1998).

**Benefit eligibility requirements.** To qualify for benefit receipt, the unemployed must register at the local employment office and have typically worked in covered employment for a minimum period of 9 to 12 months within a reference period of 12 to 36 months, depending on the country. As a significant exception, Hungary requires the minimum employment period of 90 days in the 4 years preceding unemployment. Workers who quit are either not eligible for benefit receipt (e.g., the Czech Republic) or observe a waiting period (e.g., Bulgaria, 5 months; Hungary, 180 days; and Poland, and Slovakia, 90 days).

Continuing eligibility typically requires claimants to be actively seeking, capable of, and available for work. Employment offices also require the claimant be willing to accept suitable job offers. Furthermore, some countries (e.g., Poland) also require claimants to be willing to participate in vocational training or public works programs, and not collect any other public cash transfers at the same time. Non-compliance with these requirements, according to the legislation, results in disqualification.

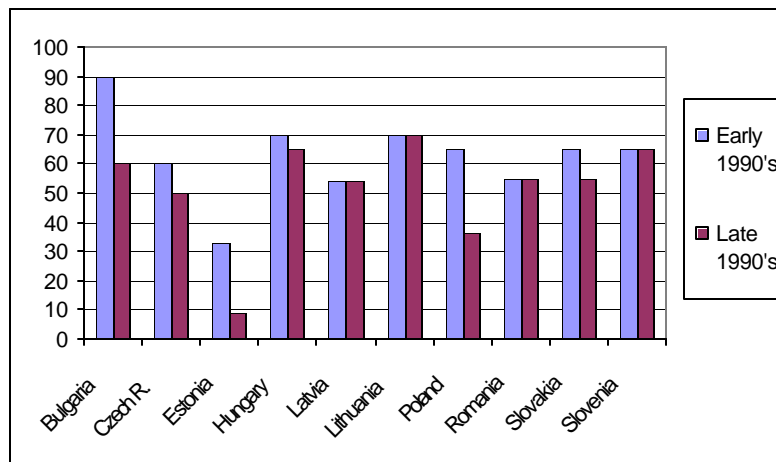
Because of the low level of benefits, transition countries often allow for a significant “earnings disregard,” that is, allow unemployment benefit claimants to earn *and* continue to maintain benefit eligibility. In Bulgaria, for instance, an individual can continue to claim unreduced benefits so long as earnings do not exceed 150 percent the official minimum wage. Likewise, the maximum admissible level of earnings is 100 percent of the minimum wage in Hungary and 50 percent in both Poland and Romania. Scarpetta and Reutersward (1994) express concern that the widespread under-reporting of wages may mean that some claimants unfairly benefit at the expense of those claimants with the greatest need, resulting in the poor allocation of funds. This problem is certainly being compounded by increasing participation rates in the informal economy.

**Benefit levels.** Benefits are usually a proportion of average earnings over some stipulated period of the most recent employment spell. The initial replacement rate ranges between 50 and 70 percent of average gross earnings, and is often degressive over time. For example, in Slovenia, the replacement rate is 70 percent in the first 3 months, followed by 60 percent in the remaining months. A notable exception is Poland where the benefit level is not related to previous earnings but rather set at 36 percent the national average wage; until 2003, a flat fee benefit set at a very low level (below 10 percent of the average wage) was

also in place in Estonia. Some countries such as Bulgaria and the Czech Republic reward those who attend or complete training courses by offering them a higher replacement rate. Benefit ceilings and floors are used to limit the range of benefits. When present, minimum benefit levels are usually at either official minimum wage or slightly below (75-90 percent of minimum wage), while the maximum benefit level is typically at 150 percent of the minimum wage. However, the benefit ceiling exhibits greater variation, ranging from 140 percent in Bulgaria to 300 percent in Slovenia. The compression of the benefit range, particularly the establishment of low ceilings, have helped contain outlays. In addition, benefit ceilings play an important redistributive role.

Under increased fiscal pressures, many countries have found it hard to sustain the benefit levels as set at the introduction of the programs. Several countries therefore reduced their unemployment insurance replacement rates by the late 1990s (see Figure 2).

**Figure 2: Replacement Rate of Unemployment Insurance Payments, Transition Economies, Early and Late 1990s\***



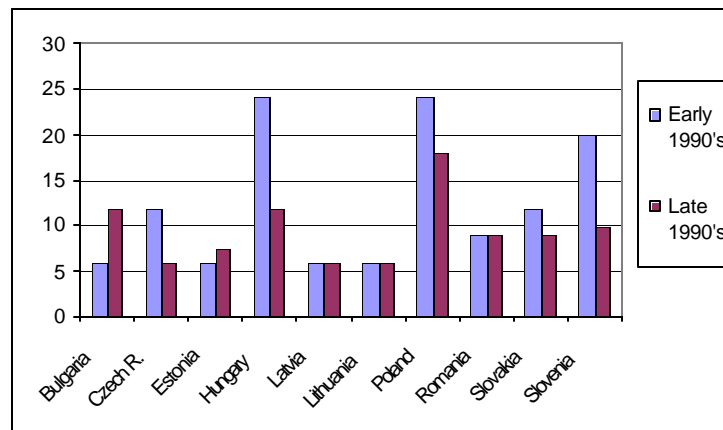
Source: Table 8.

\*Average replacement rate in the first six months of benefit eligibility. For Estonia, the benefit is flat, so the rate is calculated as the level of the benefit divided by the average wage

**Benefit duration.** With the exceptions of Bulgaria (and since 2003, Estonia), all transition countries have reduced the maximum potential duration of unemployment benefit payments (see Figure 3). As it stands, the maximum potential duration of benefits is typically 12 months. Notable exceptions include the Czech Republic (6 months) on the

lower side and Slovenia (24 months) on the higher side. Durations are often tied to the length of previous employment history and sometimes to age (e.g., in Bulgaria, Estonia, Slovakia, and Slovenia). In Slovenia, for example, the potential benefit duration for those with work experience of 1-5 years is 3 months; in contrast, for those with work experience above 25 years and older than 55 years, it is 24 months.

**Figure 3: Maximum Potential Duration of Unemployment Insurance Payments, Transition Economies, Early and Late 1990s**



Source: Table 8.

**Special rules.** As in OECD countries, transition countries give special dispensation to school leavers, the older unemployed, and the unemployed in “high unemployment” regions. School leavers who are unable to find suitable jobs within a certain period of time (e.g., in Bulgaria, 1 month, and in Poland, 4 months) are entitled to unemployment benefits albeit for a shorter maximum potential duration than normal. These benefits are provided as a “job search allowance” and tend to be some percentage of the official minimum wage (e.g., Hungary, 75 percent of minimum wage; Bulgaria, 90 percent). Options for the older unemployed are more varied, but typically consist of extended benefit durations (see above). Furthermore, in many countries, those individuals that are a couple of years away from retirement age are entitled to unemployment benefits until then. Similarly, those individuals unemployed in regions where the unemployment rate is particularly high or increasing more rapidly than the national rate are entitled to extended benefits. For example, in Poland, the

benefit duration is related to the relative incidence of unemployment in the local labor market and selectively to a number of other criteria.<sup>8</sup>

**Financing.** Similar to most OECD countries, unemployment benefits are financed through extra-budgetary means based on regular contributions from employers (and some in cases, employees).<sup>9</sup> These contributions are channeled into designated funds which are often used to finance both passive (including unemployment benefits) and active labor market programs. In Hungary, a separate fund (the Solidarity Fund) was set up for unemployment benefits exclusively. As aforementioned, all countries require employers to contribute for unemployment benefits, while only some require the same of employees (e.g., the Czech and Slovak Republics). The contribution rate for employers varies between 3 percent of payroll in Poland and Slovakia to 7 percent in Bulgaria and Hungary. Where applicable, the contribution rate for employees are generally lower, either 1 or 2 percent of wages. The rates for both employers and employees are comparable to that of OECD countries, but unlike the latter, unemployment benefit programs in transition countries often fail to be financially self-sufficient and consequently, program deficits have to be financed out of state budgets. For example, in 1992, Hungary and Poland financed 30 and 70 percent of total unemployment benefit costs respectively out of general tax revenues.

#### **Unemployment assistance.**

In some transition countries, unemployed workers who have exhausted their eligibility to unemployment insurance benefits can continue to receive benefits under a means-tested program called unemployment assistance. For example, in Slovenia, unemployment assistance benefits are awarded to individuals whose actual income per family member is below 80 percent of the minimum wage; regardless of the gap, the same amount of 80 percent of the guaranteed wage is paid to all who qualify. The benefit is paid for 15 months.

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<sup>8</sup> According to the 1996/97 act, if the local unemployment rate is less than the national average, then the resident unemployed is entitled to a maximum of 6 months; if the local rate exceeds the national average, the resident unemployed is entitled to a maximum of 12 months; and finally, if the local rate is more than double the national average, and the unemployed has more than 20 years of service, an unemployed spouse, and supports a child of less than 15 years of age, then s/he is entitled to a maximum duration of 18 months (Kwaitkowski, 1998). <sup>8</sup> One notable exception is Estonia where unemployment benefits is financed entirely from general tax revenues.

<sup>9</sup> One notable exception is Estonia where unemployment benefits is financed entirely from general tax revenues.

Under unemployment assistance, the same rules for continuation of eligibility apply as under unemployment insurance. Unemployment assistance programs are also in place in Bulgaria and Hungary.

**Social assistance.**

Partly as a result of the declining coverage rate of unemployment benefit programs, transition countries have relied increasingly on social assistance – a means-tested income support scheme of the last resort – to provide income support to the unemployed. Largely as a reflection of its growing rolls, expenditures on social assistance, although less than 1 percent of GDP generally, has increased steadily in several countries.

Social assistance typically takes the form of guaranteed minimum income schemes (e.g., the Czech and Slovak Republics, Bulgaria, and Romania) and are provided to all those in need, including the unemployed. Apart from these general schemes, some countries also offer means-tested assistance programs targeted at the long-term unemployed (e.g., Hungary). Social assistance benefits are generally flat rate (usually at guaranteed minimum income at uniform rates), and hence lower than earnings-related unemployment benefits. Minimum social assistance benefit levels as a percent of average wages in 1997-98 varied between a low of 10.6 percent in Romania and a high of 32.5 percent in the Slovak Republic. Benefits are provided indefinitely, subject to regular checks to determine continuing eligibility. When maximum durations are fixed as in Bulgaria and Slovenia (6 months), and Hungary (24 months), they tend to be renewable. If unemployed, social assistance claimants must also actively seek, be capable of, and available for work. Consequently, social assistance claimants have to report to employment offices periodically, although usually less frequently than unemployment benefit claimants.

Boeri (1998) notes that the transition from earnings-related unemployment benefits to means-tested, flat-rate social assistance generally involves some compensation loss. However, since social assistance benefits take into account household characteristics (e.g., number of dependents), it is conceivable that low-income claimants with large families may receive higher payments than under unemployment benefits. In addition, the receipt of in-kind benefits may make social assistance more generous than unemployment benefits.

Notwithstanding differences in the nominal values in unemployment benefits and social assistance, high inflation in several countries have significantly reduced the generosity (in real terms) of income support for the unemployed as unemployment benefits (and social assistance to a lesser extent) have been poorly adjusted for inflation, or not at all. Consequently, in some countries, unemployment benefits have had to be “topped up” with social assistance in order to ensure that low-income claimants at least receive the social minima (e.g., the Czech and Slovak Republics). This concern aside, as prices stabilize, the transition from unemployment benefits to social assistance may result in unemployment traps as claimants (especially those with large families and no other earners) may prefer social assistance benefits (often with in-kind provisions such as housing or free meals) to jobs, the majority of which tend to be low-wage (Boeri, 1997). Even if the adverse effects on work incentives can be addressed, the transition from unemployment benefits to social assistance necessarily involves an increased administrative burden as a result of the additional requirement of means-testing.

### ***3.2 Implementation issues***

The task of building administrative capacity to provide employment services to the unemployed – including unemployment benefits – has been quite challenging. With the rapid growth of benefit claimants, employment offices, often understaffed and underequipped, came under tremendous stress. Information systems on benefit delivery had to be introduced from scratch, and an integrated information system on delivery of all cash benefits still remains a remote goal in all transition economies. Furthermore, with employment offices handling both active and passive programs, the monitoring of claimant compliance suffered. The two roles – helping to find a job and monitoring eligibility – were often incompatible. Relatedly, in several countries unemployment benefit programs had to be amended as it became increasingly clear that they were too generous to be sustainable over the long-term – or that legislation did not provide an adequate basis for administering these benefits.

There are numerous difficulties in making usual conditions for benefit eligibility “operational” in any country. First, how should one monitor “availability for work?” A

recent attempt by Slovenia requires benefit recipients to make themselves available for contacting by employment offices for three hours per day – but this arrangement, aimed at curbing informal employment, has not produced desired results (see below). Second, the requirement of “actively seeking employment” cannot be easily incorporated into legislation. What is reasonable to expect from the unemployed may well depend on individual circumstances (such as skills, qualifications, experience, and also the length of unemployment spell), as well as employment prospects in the local labor market. Third, additional problems are involved in defining a “suitable job”, and with limiting the amount of work which may be undertaken without affecting the level or receipt of the benefit.

The task of monitoring eligibility is even more difficult in transition economies. First, adjusting benefit legislation to suit local conditions and norms takes time (frequent changes in transition economies attest to that). Until legislative loopholes and deficiencies are fixed, fertile grounds exist for both “type I errors” (unjustified exclusions from benefits, for example, of workers whose employers did not pay benefit contributions), as well as “type II errors” (too easy access to benefits, for example, by persons who actually work). Second, transition economies offer lucrative employment opportunities in a thriving informal economy, which raises the costs of monitoring. And third, many of the unemployed believe they are entitled to benefits – and this sentiment is sometimes shared with counselors at employment offices.<sup>10</sup>

The task of monitoring eligibility is also hampered by the transitional economies’ weak monitoring and enforcement capacity. These economies lack the technology, resources, and often also the political will to monitor and enforce existing laws.<sup>11</sup> For example, Bardasi et al (2001) report that the proportion of benefit recipients who were actually searching for jobs is below 50 percent in Slovenia and ranges from 60 to 90 percent for the Czech Republic, Hungary, Poland and Slovakia. They report that these proportions are fall dramatically when one considers active job search only (defined as any method other than visiting the employment office): the proportion drops to about 25 percent for Slovakia, and exceeds 50

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<sup>10</sup> Vodopivec (1998) reports that benefit recipients in Slovenia were sometimes not invited to employment offices if it was known that they were not available for work (when they provided childcare, for example).

percent only for Poland and Hungary (men only).<sup>12</sup> Moreover, verifying the accuracy of self-reported earnings is often not done – in part because administrative information systems do not allow cross-checking of benefit receipt. It is thus not surprising that Micklewright and Nagy (1996) report that in Hungary, disqualifications from unemployment insurance benefits occur rarely – for example, of the March 1992 cohort of unemployment insurance recipients, 4 percent of spells ended that way. The risk of disqualification was much higher for the young, the less-educated, blue-collar workers, and those living in the capital, Budapest.

While conceivably these differences could occur with the same degree of enforcement of the rules, in all likelihood the severity with which the sanctions are imposed vary across offices within the country – as well as between countries. For example, the risk of benefit disqualification in Slovenia is much lower than in Hungary – in 1998, only one percent of spells ended with disqualification, and in 1999, only 0.65 percent, despite changes in legislation aimed at improving the monitoring of benefit eligibility. And in Estonia, the country with the most modest unemployment benefit, casual evidence suggest that employment offices sometimes side with the unemployed and let them collect benefits until exhaustion – precisely because the benefit is so low.

The above considerations have an important bearing on the effects of income support systems, primarily on the decision to leave (formal) unemployment. For example, if monitoring of job search is lax, some of the unemployed may not make a genuine effort to search for jobs; or they may misuse the system by collecting benefits and performing undeclared paid work at the same time. We will return to these issues in the section on distributive and efficiency effects.

### ***3.3 Costs of unemployment protection***

Below we present the overall costs of unemployment benefit programs in transition economies, as well as summary measures of their generosity, using an accounting framework developed by Vroman (2002). The majority of transition economies kept their

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<sup>11</sup> Earle and Pauna (1998) report the average caseload of 668 unemployed per one unemployed in Romania in 1993, while only a in few OECD countries did the caseload exceeds 100.

<sup>12</sup> For the sake of comparison, Bardasi et al (2001) also include the UK and Spain in their analysis of Central European countries. While the UK has the highest proportion of benefit recipients who are actively searching, Spain's performance is similar to that of the Central European countries.

unemployment benefit expenditures below 1 percent of GDP, and Estonia and the Czech Republic even below 0.25 percent of GDP (Table 9, panel A), lower than in most OECD countries. The highest benefit expenditure shares were recorded by Poland and Hungary (in Hungary, this share rapidly decreased in the late 1990s).

The two key determinants of the cost of unemployment protection are the income replacement rate (RRate) or benefit level, expressed as a fraction of average wage, and the ratio of benefit recipients and the number of unemployed as identified by labor force surveys (NBen/Unemp; note that the recipients are not necessarily a subset of the unemployed, and that this ratio can therefore exceed 1). The former factor reflects the relative *value* of benefits while the latter reflects the relative *availability* of benefits, both factors being outcomes of policy choices. Vroman (2002) posits that the product of the replacement rate and the share of compensated unemployed captures more inclusively the generosity of unemployment benefit programs. This product is termed the generosity index (G):

$$\text{Generosity index (G)} = 100 * \text{RRate} * (\text{Nben}/\text{Unemp})$$

Available evidence indicates that the replacement rate (RRate) has declined in all countries except Slovenia (see Table 9, panel B). The story is more mixed for the share of unemployed who receive benefits (see Table 9, panel C) – Poland shows the most marked decline, from 79 percent in 1991 to 24 percent in 1999; other countries showed relatively slight or moderate deviations across time. Hungary represents an interesting example of relatively easy access to benefits, with the number of recipients even exceeding the number of unemployed in 1999. An examination of the generosity index of benefit programs clearly shows the effect of the sharp fall in the share of the recipients on the generosity of the Polish benefit program. Combining the two effects, the generosity index shows that the generosity of unemployment benefits is highest in Slovenia and Hungary, and lowest in Estonia, with the others clustered in the 5 to 15 percent range (see Table 9, panel D, and Figure 4).

**Table 9: Expenditures and Generosity of Unemployment Benefits, 1990s**

	1991	1992	1993	1994	1995	1996	1997	1998	1999
<b>A. Expenditures on unemployment benefits (as a % of GDP)</b>									
Bulgaria	0.55	0.64	0.96	0.54	--	--	--	--	--
Czech Republic	0.23	0.18	0.15	--	0.13	0.14	0.21	0.24	--
Estonia	--	--	--	0.11	0.07	0.07	0.08	--	--
Hungary*	--	2.16	2.03	1.07	0.71	0.60	0.46	--	--
Poland	--	1.71	1.72	1.77	1.88	1.77	--	--	--
Slovak Republic	0.98	0.60	0.56	0.43	--	--	--	--	--
Slovenia*	0.57	0.82	1.22	1.13	0.75	0.71	0.90	0.89	0.79
<b>B. Unemployment benefit replacement rate</b>									
Bulgaria	0.68	0.29	0.34	0.31	0.30	0.38	0.30	--	--
Czech Republic	0.42	0.30	0.28	0.27	0.25	0.24	0.24	0.20	0.20
Estonia	--	--	0.17	0.10	0.08	0.07	0.07	0.09	0.09
Hungary*	--	--	--	0.25	0.23	0.21	0.20	0.20	0.22
Poland	0.34	0.38	0.36	0.37	0.37	0.33	0.32	0.30	0.24
Slovak Republic	0.49	0.32	0.30	0.27	0.25	0.23	0.30	--	--
Slovenia*	0.32	0.29	0.33	0.34	0.33	0.31	0.36	0.37	0.37
<b>C. The ratio of unemployment benefit recipients and the number of unemployed</b>									
Bulgaria	--	--	0.23	0.23	0.29	0.29	0.35	--	--
Czech Republic	--	--	0.33	0.37	0.34	0.37	0.45	0.45	0.43
Estonia	--	--	--	0.30	0.20	0.24	0.26	0.25	0.31
Hungary*	--	--	--	0.93	0.94	0.96	0.98	1.00	1.06
Poland	0.79	0.52	0.48	0.50	0.59	0.52	0.31	0.23	0.24
Slovak Republic	--	--	0.40	0.37	0.26	0.32	0.33	--	--
Slovenia*	0.46	0.65	0.73	0.72	0.61	0.62	0.72	0.66	0.61
<b>D. Generosity index</b>									
Bulgaria	--	--	7.7	7.1	8.8	10.9	10.6	--	--
Czech Republic	--	--	9.5	9.9	8.6	8.9	10.8	9.0	8.5
Estonia	--	--	--	3.2	1.5	1.9	1.8	1.8	2.8
Hungary*	--	--	--	23.5	22.1	20.4	19.9	20.4	22.7
Poland	27.0	19.8	17.4	18.6	21.6	17.3	9.8	6.9	5.6
Slovak Republic	--	--	12.1	10.1	6.6	7.5	9.8	--	--
Slovenia*	14.6	18.9	24.2	24.2	20.5	20.1	26.6	24.6	22.8

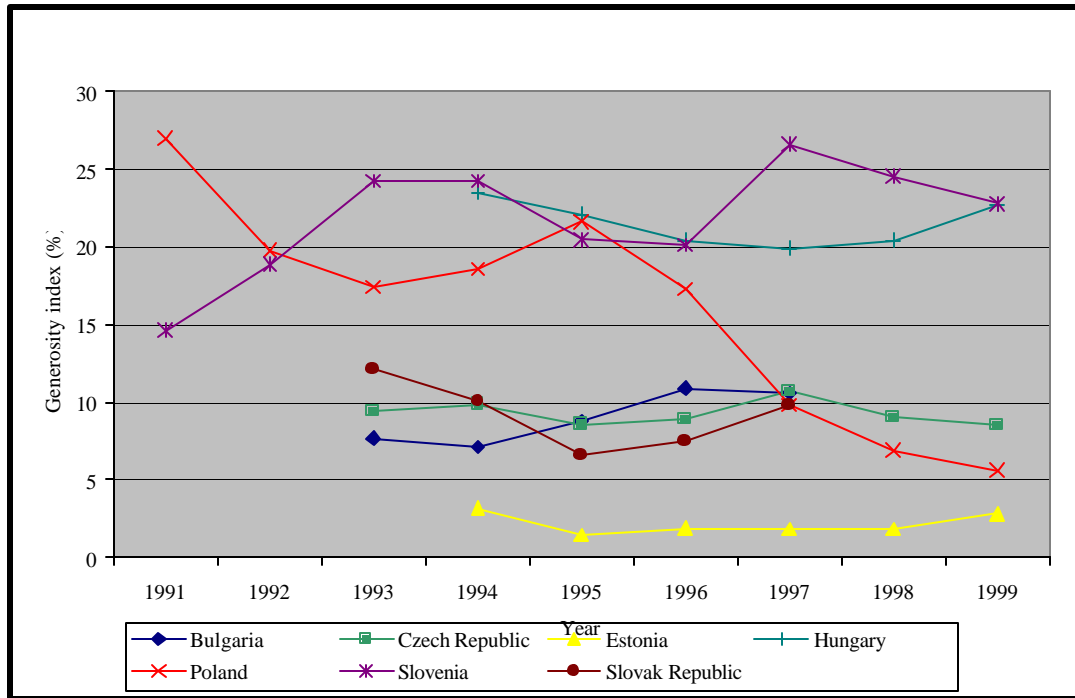
Source: Employment Outlook, OECD, various issues, Czech Republic: Statistical Office and Ministry of Labor and Social Affairs; Estonia: National Labour Board; Hungary: Central Statistical Office and National Labour Centre; Slovenia: Yearly Work Report of Employment Office, various issues.

\* Payments/recipients under both unemployment insurance and unemployment assistance are included.

The comparison of the generosity index of unemployment benefit programs in transition economies (averaged across time) with a sample of OECD countries shows that the programs in transition economies are much less generous than in the majority of OECD

countries – they are comparable only to Portugal, Greece, and the US.<sup>13</sup> The average generosity index across transition economies is 11.3 compared to 26.3 for the OECD sample. The most significant exceptions are Hungary and Slovenia, whose indices of generosity have been comparable to the average of the OECD sample.

**Figure 4: Generosity Index of Unemployment Benefit Systems, 1991-99**



Source: Table 9.

#### 4. EVALUATION OF UNEMPLOYMENT BENEFIT SYSTEMS

Above we discussed how the decline of output during the transition translated to reductions in employment and increases in unemployment, and described the formal unemployment benefit programs introduced to provide income support for the unemployed. This section seeks to evaluate the performance of these programs. Did they provide adequate and effective income support for the unemployed? Which groups of workers benefited the

<sup>13</sup> The OECD sample comprises of Belgium, Denmark, France, Germany, Greece, Ireland, the Netherlands, Portugal, Spain, Sweden, the UK, and the US; data refer to 1992 (calculations of G for the OECD sample are from Vroman, 2002).

most and what were the effects of these programs on poverty? Was applying an OECD model – for example, benefit levels determined as a percentage of an individual’s previous earnings as opposed to a flat benefit – a prudent choice? Moreover, what were the efficiency effects of these programs? Have they – as commonly found in developed economies – affected the work incentives of benefit recipients? Above all, have they reduced the intensity of job search and increased the reservation wage, thereby prolonging the duration of unemployment and contributing to higher unemployment? On the other hand, did the introduction of benefit programs ease the huge and painful task of enterprise restructuring? This section attempts to answer some of the above questions. We first discuss distributive and then efficiency effects.

#### ***4.1 Distributive effects***

In the mid-1990s, in Hungary and Poland unemployment benefits represented a sizeable share of household income, they were received by the majority of households with unemployed workers, and they were largely directed to households in poverty or to those which were drawn out of poverty by such benefits. Although they were not designed to do so, unemployment benefits in these two countries strongly reduced poverty. In contrast, in some other countries in our sample, unemployment benefit programs had limited coverage, they provided a relatively small share of household income, and they did not reach many of the poor. In all countries, unemployment benefits in the mid 1990s were strongly progressive, thus bringing about the redistribution of income from the rich to the poor.

*Coverage.* In the mid-1990s, the coverage of unemployment benefits varied tremendously among the countries in our sample (Table 10). In Hungary, 78 percent of households with at least one unemployed worker them received unemployment benefits, followed by 65 percent in Poland; in contrast, the coverage of households with an unemployed worker was only 17-19 percent in Estonia and Latvia. Understandably, from the standpoint of coverage of all households, the numbers are much lower, but variations are large as well. Interestingly, among households with an unemployed member, the receipt of unemployment benefits is less prevalent among poor households, with the exception of Estonia.

**Table 10: Coverage, Targeting, Average Share, and Poverty Reduction of Unemployment Benefits<sup>1</sup>**

	Bulgaria <sup>2</sup>		Estonia		Hungary		Latvia		Poland		Slovakia		Slovenia	
	All hh.	All hh.	Hh. with unemp.	All hh.	Hh. with unemp.	All hh.	Hh. with unemp.	All hh.	Hh. with unemp.	All hh.	Hh. with unemp.	All hh.	Hh. with unemp.	
<b>Coverage</b> (in percent)														
The share of households that receive UB	4.22	1.94	18.74	16.20	77.53	2.14	17.42	9.31	64.73	7.83	24.35	8.08	42.69	
The share of the poor households that receive UB <sup>3</sup>	10.57	5.08	20.76	32.49	64.45	5.22	13.01	15.60	51.56	17.75	32.10	13.84	34.64	
<b>Targeting</b> - the share of UB budget received by the following groups:														
Poor households	38.92	46.27	46.27	12.77	12.77	19.68	19.68	18.49	18.49	9.94	9.94	19.75	19.75	
Households drawn from poverty by UB	12.16	11.60	11.60	38.24	38.24	33.24	33.24	34.35	34.35	25.59	25.59	25.14	25.14	
Households above the poverty threshold even if they didn't receive UB	48.92	42.12	42.12	49.00	49.00	47.08	47.08	47.17	47.17	64.47	64.47	55.11	55.11	
<b>Average share of UB</b> in total household income (in percent), among:														
All households	0.55	0.43	4.11	4.17	19.94	0.78	6.31	3.21	22.34	0.67	2.07	2.13	11.28	
Households receiving the benefit	13.04	21.92	21.92	25.72	25.72	36.21	36.21	34.51	34.51	8.51	8.51	26.43	26.43	
<b>Poverty reduction brought about by the UB receipt</b>														
In percent of hypothetically poor (pre-benefit headcount) <sup>4</sup>	3.29	1.33	4.68	40.00	53.28	3.96	9.22	20.57	44.73	21.58	31.19	7.96	15.71	
In percent of total population	0.60	0.25	1.84	5.23	19.72	0.59	3.79	3.53	19.21	1.05	2.97	1.31	5.84	
<b>Memorandum items</b>														
<b>Poverty headcount</b>	17.58	18.58	37.41	7.84	17.29	14.32	37.31	13.63	23.74	3.83	6.55	15.15	31.35	
<b>Percent of households that have an unemployed</b>	n.a.	10.37	100	20.90	100	12.31	100	14.38	100	32.14	100	18.92	100	
<b>Poverty Gap</b> <sup>5</sup>	3.36	3.43		0.94		1.95		1.89		0.17		2.56		

Source: Own calculations from online HEIDE data (Household Expenditure and Income data for Transitional Economies), URL: <http://www.worldbank.org/research/transition/house.htm>; for Slovenia, data provided by the Slovenian Statistical Office. Survey year: Bulgaria, 1995; Hungary, 1993; Latvia, 1997; Poland, 1993; Slovak Republic, 1993; Slovenia, 1997-98. Sample Size: Bulgaria: 2,466; Hungary: 8,105; Latvia: 7,690; Poland: 16,051; Slovakia: 2,129; Slovenia: 2,577. Survey weights used where appropriate.

Notes:

<sup>1</sup> Unemployment benefits include both payments of unemployment insurance and unemployment assistance.

<sup>2</sup> Bulgarian data do not allow the identification of unemployed household members.

<sup>3</sup> Poor are those households (and individuals living in them) whose income per equivalent adult is below the poverty line. Poverty line is defined as 60 percent of the median of the distribution of income per equivalent adult. The number of equivalent adults is obtained by using the OECD weighing scheme: 1 for the first adult in the household, 0.7 for each subsequent adult, and 0.5 for each child below 15 years.

<sup>4</sup> Hypothetically poor are households with pre-unemployment-benefit income per equivalent adult below the poverty line.

<sup>5</sup> Poverty gap is the share of income which, if distributed among the poor households, would bring them out of poverty, in total household income.

*Average share of UB in household income.* Countries also varied greatly by how sizeable was the average share of unemployment benefits in household income. Among all households, this share was the largest in Hungary (4.2 percent), followed by Poland (3.2); these two countries were also ahead of others when limiting households to those with at least one unemployed (in Hungary, the share within this set was 19.9 percent, and in Poland 22.3 percent). Comparable shares in other countries were smaller by several times, with the smallest being in Estonia (0.43 and 4.11 percent, in the sets of all households and households with at least one unemployed, respectively).

*Targeting.* Another look at distributive properties of unemployment benefits is offered by viewing how benefits are spread over different groups. Among all countries, by far the largest share of unemployment benefits received by the poor was in Estonia (46 percent), but the share of individuals who were drawn out of poverty by unemployment benefits was the smallest. The small share of individuals drawn out of poverty in Estonia is quite likely due to the modest size of the benefit in the 1990s, as noted above. The highest share of individuals drawn out of poverty was recorded in Hungary, Poland, and Latvia. As mentioned above, in Hungary and Poland, the share of unemployment benefits in household income was highest among the countries included in our sample. The share of unemployment benefits received by households ranked above the poverty threshold by their pre-benefit income was highest in Slovakia (64 percent) and Slovenia (55 percent).

*Reduction of poverty.* Although, admittedly, the objective of unemployment insurance programs is not poverty relief but rather consumption smoothing for the workers who lost their jobs, it is nonetheless interesting to observe to what extent unemployment benefits – by default, not by design – contributed to fighting poverty. In line with wide variations of the above-discussed distributive measures, the effects on poverty reduction also varied tremendously among countries. In Poland and Hungary, the poverty reduction effects were great. In Hungary, the reduction of poverty among the unemployed was over 50 percent (that is, in the absence of unemployment benefits, the number of poor unemployed would have more than doubled), and in Poland 45 percent. Even expressed as percentages of the total population the numbers are large: in Hungary, 4.1 percent of the total population was drawn out of poverty by unemployment benefits, and in Poland, 3.2 percent. Such favorable

results were produced by the attractive distributive properties discussed above – widespread coverage, the large share of benefits received by the poor, and the benefits representing a relatively large share of total household income, but are partly attributable also to a relatively small poverty gap in these two countries (0.94 and 1.95 percent in Hungary and Poland). The least reduction of poverty by benefits was recorded by Estonia, where 4.7 percent of the unemployed, and 0.25 percent of the total population, were drawn out of poverty by them. Small effects on poverty were recorded also by Bulgaria and Latvia, reflecting primarily the low coverage and small share of unemployment benefits in total income.

*Incidence of benefits by income quintiles.* Further insights about the redistribution of income implied by unemployment benefits are obtained by the analysis of their incidence (Table 11). In all countries, in mid-1990s benefits were strongly progressive (poorer households received a larger share of benefits – Table 11, panel A). The most progressive system (with the bottom 40 percent of the households receiving 73 percent of unemployment benefits) was the Estonian one, which may be the consequence of the flat rate benefit regime. Interestingly, among the households with at least one unemployed, the incidence of benefits was *regressive*, suggesting that unemployment benefits were effective in moving recipient households up the post-benefit income distribution. The exceptions were Estonia and Slovakia, the countries with the smallest share of unemployment benefits in household incomes (see Table 10), where the small scale of transfers did not make a difference in the post-benefit distribution. The conclusion that unemployment benefits were effective in improving recipients' relative income positions is reinforced by the evidence that, within households with at least one unemployed, benefits ranked by pre-benefit income were *progressive* in all countries (Table 11, panel B).

In sum, it is startling that although unemployment benefits are focused on job-losers, in transition countries they nonetheless contributed significantly to poverty reduction. Obviously, for many households, earnings represented the single most important household income, and unless it was compensated, the loss of a job pushed many of such households into poverty. The above evidence also suggests that it is more likely that unemployment benefits make a difference if coverage is large and the benefit amount is significant. While the fact that Estonia paid a flat benefit (that is, a benefit equal for all) contributed to the high

**Table 11: Incidence of Unemployment Benefits by Income Quintiles, Mid-1990s<sup>1</sup>**

	<b>Bulgaria<sup>2</sup></b>		<b>Estonia</b>		<b>Hungary</b>		<b>Latvia</b>		<b>Poland</b>		<b>Slovakia</b>		<b>Slovenia</b>	
	All hh.	All hh.	Hh. with unemp.	All hh..	Hh. with unemp.	All hh.	Hh. with unemp.	All hh..	Hh. with unemp.	All hh..	Hh. with unemp.	All hh..	Hh. with unemp.	
<b>A. Households ranked by post-benefit income</b>														
Highest quintile (the richest)	11.54	6.44	19.83	7.97	19.49	20.01	37.62	5.28	20.45	13.27	24.81	8.70	32.75	
Second quintile	7.42	13.99	12.74	13.00	21.23	18.59	27.48	11.43	22.33	11.53	13.10	18.67	25.51	
Third quintile	12.90	11.05	24.28	17.63	21.55	16.64	14.12	20.05	20.93	15.18	20.24	26.31	15.17	
Fourth quintile	19.28	16.50	11.77	24.05	21.12	15.67	11.68	28.13	19.99	26.06	16.08	18.77	15.05	
Lowest quintile (the poorest)	48.86	52.02	31.38	37.35	16.62	29.09	9.10	35.11	16.30	33.95	25.78	27.54	11.52	
<b>B. Households ranked by pre-benefit income</b>														
Highest quintile (the richest)	6.29	5.81	16.73	2.92	12.82	5.11	13.55	2.60	14.34	7.46	15.98	3.85	18.62	
Second quintile	10.26	10.91	11.48	4.95	14.97	7.67	16.58	4.03	16.79	8.51	13.96	8.14	18.09	
Third quintile	7.72	8.33	15.13	9.78	18.69	13.33	17.71	9.67	18.40	14.80	13.10	14.19	17.82	
Fourth quintile	16.70	13.94	18.76	14.61	22.57	8.99	15.18	19.15	21.07	15.56	12.27	24.86	17.30	
Lowest quintile (the poorest)	59.03	61.01	37.90	67.75	30.95	64.90	36.97	64.55	29.40	53.66	44.69	48.96	28.17	

Source: same as for Table 10.

Notes:

<sup>1</sup> Households are ranked by income per equivalent adult (see Table 10 for the equivalency scale). Unemployment benefits include both payments of unemployment insurance and unemployment assistance.

<sup>2</sup> Bulgarian data do not allow the identification of unemployed household members.

share of benefits received by the poor (the share of benefits received by the poor in an earnings-related scheme would be lower), the low amount of the benefit prevented a more significant effect on poverty reduction among recipients. Of course, the size of the poverty gap also determined the effectiveness of transfers in reducing poverty – for example, despite channeling quite a high share of benefits to the (pre-benefit) poor, Estonia’s and Bulgaria’s overall effect on reduction of poverty was modest not only because of the small level of the benefit, but also because their poverty was so deep. The evidence also shows that the income redistribution produced by unemployment benefits was strongly progressive, although it did not reach the extreme outcomes obtained, for example, in Chile, where about 60 percent of unemployment benefits is received by the poorest quintile of the population (Krumm et al, 1994). Because unemployment insurance contribution rates are earnings related, the incidence of *net* benefits, that is, the incidence of benefits once both the cost and benefits are considered, is even more progressive.<sup>14</sup>

The above evidence on distributive effects shows that unemployment benefits redistributed income from the rich to the poor and significantly reduced poverty. Have such effects been produced by worsening efficiency, for example, by producing work disincentives? This is the topic which we discuss next.

#### ***4.2 Efficiency effects***

Below we summarize the results of studies on how unemployment insurance schemes affected economic efficiency; we also present some new evidence on Estonia, the country with perhaps the most parsimonious unemployment benefit system of the countries studied here. Above all, we focus on incentive effects (on job-search effort and the duration of unemployment, on the restructuring of enterprises and on the overall reallocation of labor, and on the labor supply of other family members), and on aggregate effects.

*Effects on the duration of unemployment spells.* Theoretical predictions about the effect of unemployment benefits on job-search effort are ambiguous. A stylized prediction from simple theoretical models is that an increase in unemployment benefit reduces the recipient’s probability of transition from unemployment to employment, that is, it increases

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<sup>14</sup> The impact of unemployment benefits is less progressive in developed countries. As shown by Forster (2000), the effects of benefits are progressive in about half of the OECD countries, and neutral in the other half.

the expected duration of unemployment. This follows from job-search models (because the reservation wage is assumed to rise initially with the benefit level), as well as from labor supply models (because less income is forgone by staying unemployed). However, once more complexity is introduced into the models (for example, recognizing that unemployment insurance is paid only for a finite period and that by taking employment, one re-qualifies for unemployment insurance) it can also be shown that an increase of the benefit rate makes the transition to employment more attractive, not less (see Atkinson and Micklewright, 1991). Or one can argue that unemployment benefits increases resources devoted to search and hence increases the probability of finding a job. In other words, the theoretical predictions on the effects of longer durations and higher replacement rates on the probability of transition from unemployment to employment are ambiguous.

In contrast to the ambiguity of predictions arising from theoretical models, empirical evidence is much more clear-cut. Similar to the evidence on developed economies, empirical studies for transition economies show that unemployment benefits reduce the probability of leaving unemployment to take a job.<sup>15</sup> Except for Romania, the negative effects of the potential benefit duration on the probability of exit from unemployment to employment have been confirmed for all countries for which such studies were performed, although some studies also found little evidence of work disincentives (see Table 12 for a summary of empirical findings). It is particularly interesting that the adverse incentive effects can be detected even in Estonia, a country with far the most parsimonious unemployment benefit program (see Figure 5).<sup>16</sup> Most studies find that the exit rate from unemployment to employment significantly increases near benefit exhaustion (in some countries, the exit rate to inactivity also increases). The effects of the replacement ratio are less pronounced: Ham et al. (1999) find significant effects for the Czech Republic but not for Slovakia; Vodopivec (1995) also finds insignificant effects for Slovenia. As for the scale of these effects, Ham et

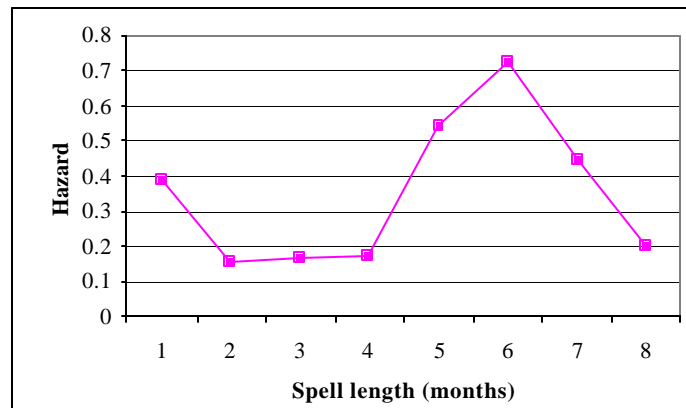
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<sup>15</sup> The vast majority of studies on developed economies find the elasticity of duration of unemployment with respect to replacement rate and particularly to duration is positive, and that there is a sharp increase in the probability of exit to employment just before the benefit is exhausted (for a thorough review of the literature, see, for example, Devine and Keifer (1991), or Atkinson and Micklewright, 1991).

<sup>16</sup> This phenomenon may be explained by the fact that employment offices – because of the low level of benefits – are reluctant to take steps to disqualify benefit recipients.

al (1999) find the effects for the Czech Republic to be comparable to the ones in developed economies (few other studies provide estimates of the (elasticity of the duration of unemployment with respect to potential duration and level of benefits).<sup>17</sup> Micklewright and Nagy (1996) estimate that about 8 percent of exits to jobs from unemployment occur at the point of exhaustion, Vodopivec (1995) provides an estimate of about 6 percent, and our calculations for Estonia produce an even higher figure, namely, 32 percent of such cases.

**Figure 5: Hazard of Exit from Unemployment to Employment, Estonia, 1991-1995**



Note: Based on 1998 observations (853 censored); data from the 1995 Estonian Labor Force Survey (see data description in Vodopivec 2002).

The above results of analytical studies on the work disincentives created by unemployment benefits systems suggest that transition economies have certainly not escaped, them but that such disincentives are of similar in magnitude to those in developed economies. Moreover, the differences in the strength of these disincentive effects among countries is large, and both parsimonious and generous systems have generated such disincentives. Variations in the magnitude of these effects are produced by differences in the effectiveness of monitoring of job search and the enforcement of the work test among countries.

<sup>17</sup> According to Layard et al (1991), the *benefit elasticity* ranges from 0.2 to 0.9, depending on the state of the labor market and the country concerned. According to Katz and Meyer (1990), the *duration elasticity* in the U.S. is in the range of 0.4 to 0.5.

**Table 12: Incentives Effects of Unemployment Benefits in Transition Economies**

<b>Study</b>	<b>Model/Methodology</b>	<b>Findings</b>
<b>Bulgaria</b>		
Jones and Kotzeva (1998)  Study of the effects of the transition to social assistance	Survivor functions, binary logit	Exit rate to employment increases between the 18 <sup>th</sup> and 26 <sup>th</sup> month of the spell (social assistance benefit exhaustion). Survival functions indicate “waiting behavior” for social assistance recipients.
Cazes and Scarpetta (1998)	Empirical hazard function, piece-wise constant hazard function	Exit probability toward the end of the entitlement period increased dramatically. Unemployment benefit recipients exit unemployment more slowly than non-recipients, many leave to inactivity rather than to employment.
Kotzeva, Mircheva, and A. Woergoetter (1996)	Binomial logit	Recipients of UI are significantly less likely to take a job.
<b>Czech Republic</b>		
Ham, Svejnar and Terrell (1998)	Hazard model	Elasticity of duration with respect to: - increase of replacement rate = 0.34 - increase in duration of benefit = 0.4
<b>Estonia</b>		
Own calculation (see Figure 5)	Empirical hazard function	Exit to employment significantly increases around the point of benefit exhaustion
<b>Hungary</b>		
Micklewright and Nagy (1998)	Non-parametric and parametric proportional hazard, discrete time-duration model	High proportion of UI recipients remain until benefit exhaustion. Exit rates are characterized by a large spike in the period immediately after benefit exhaustion: job-exit hazard increases six- to eight-fold in comparison to the period prior to exhaustion.
<b>Poland</b>		
Adamchik (1999)	Proportional hazard	Negative effect of the receipt of benefits on probability of exit to a job, dramatic increase of the hazard as the benefit is about to expire.
Puhani (1996)	Hazard model	Entitlement to unemployment benefits significantly prolongs duration of unemployment
Steiner and Kwiatkowski (1995) (cited in Kwiatkowski, 1998)	Multinomial logit	UI recipients had lower exit rates than non-UI recipients, particularly with respect to the exit rate from unemployment to inactivity.
Boeri and Steiner (1996)	Hazard model	Exit rates increase as entitlement duration approaches exhaustion, especially in the capital (males: increased flow to employment; females: increased flow to inactivity). Exit rate to inactivity increased markedly in the month after benefit exhaustion.

**Table 12: Incentives Effects of Unemployment Benefits in Transition Economies (cont'd.)**

<b>Study</b>	<b>Model/Methodology</b>	<b>Findings</b>
<b>Poland</b>		
Cazes and Scarpetta (1998)	Empirical hazard function, piece-wise constant hazard function	Exit probability related to differentiated maximum lengths of UB entitlement. Unemployment benefit recipients exit unemployment much more slowly than non-recipients, but many leave to inactivity rather than to employment, especially in backward areas.
<b>Romania</b>		
Earle and Pauna (1998)	Hazard model	Receipt of benefits increases probability of leaving unemployment (no disincentive effects).
<b>Slovakia</b>		
Lubyova and Ours (1999)	Proportional hazard	Little evidence of disincentive effects.
Ham, Svejnar and Terrell (1998)	Hazard model	Elasticity of duration with respect to: - increase of replacement rate = 0.06 - increase in duration of benefit = 0.41
<b>Slovenia</b>		
Vodopivec (1995)	Semi-parametric proportional hazard	Strong waiting effect – exit to employment significantly increases just before benefit exhaustion

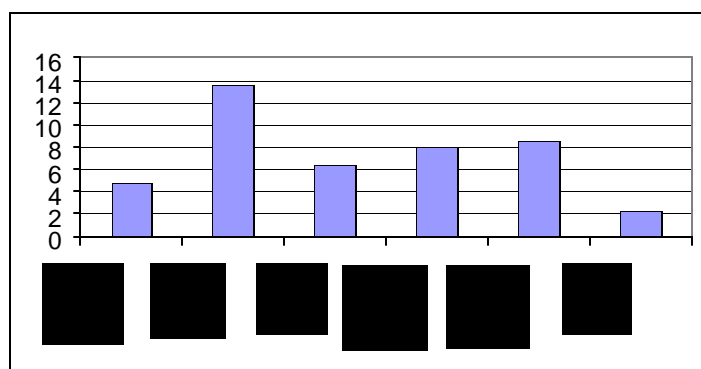
*Enhancing restructuring of enterprises and labor reallocation.* It may seem that, in order to speed up restructuring, the optimal level of insurance protection against unemployment is higher during the transition (for example, so as to overcome the reluctance of managers to lay-off workers). However, the theoretical grounds for increasing unemployment benefits to spur restructuring is weak. Blanchard (1997, pp. 113-4) shows that more generous benefits indeed add to the attractiveness of restructuring and to take unemployment risk, but at the same time hinder job creation. He concludes that “the case for increasing unemployment benefits on efficiency grounds is limited.” The review of literature on transition economies did not reveal any rigorous investigations of this issue, although several studies asserted that the introduction of unemployment benefits helped the restructuring process.<sup>18</sup>

From a political economy perspective, the connection between willingness to accept mass layoffs and the existence of a social safety net may seem quite plausible. Casual comparisons of policies and outcomes across countries, however, suggest that there are other, much more powerful forces at work which influence the pace of restructuring and labor reallocation. For example, in Slovenia, a country with one of the most generous unemployment benefit programs among the transition economies (see above), the pace of labor reallocation lagged much behind the pace of labor reallocation in Estonia, the country with the most meager benefits among the countries under consideration (see Figure 6 for the comparison of the intensity of restructuring among selected transition countries as measured by excess job reallocation rate).

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<sup>18</sup> Very interesting insights about the potential of unemployment benefits to stimulate restructuring are obtained by the simulation of the introduction of a modest unemployment benefit system in Russia (the system would provide one third of median cash earnings in the form unemployment assistance, see Klugman et al, 2002). By increasing the current wage floor, such an introduction would stimulate “high quality” mobility, as up to 14 percent of employed workers would become no worse off than unemployed. Of course, the effectiveness of unemployment benefit to stimulate mobility would depend on many other factors – job creation capacity of the economy certainly being one of the most important ones.

**Figure 6: Intensity of Restructuring: Excess Job Reallocation Rate, Mid-1990s**



Source: Faggio, G. and J. Konings (1999)

Note that some other institutions used to keep unemployment low or to preempt inflows into unemployment stand directly in the way of labor reallocation: employment protection legislation (including severance pay provisions) is clearly on the top of this list (see the model of Blanchard, 1998, showing that larger job security leads to more “sclerotic” labor markets).<sup>19</sup> Note also that there are theoretical arguments for and empirical support of claims that tight job security provisions reduce labor force participation. For example, OECD (1999) finds a strong link between stricter EPL and (i) higher unemployment rates for younger workers, (ii) higher rates of self-employment, and (iii) lower employment rates for prime-age women, youths and older workers; Heckman and Pages (2000) also confirm the link between job security and lower employment and attribute 5 percentage points of employment reduction in Latin America to job security provisions.

*Effects on labor supply of other family members.* Because unemployment assistance requires means-testing, one can expect that this will create disincentives for other family members to take a job. There is empirical evidence supporting such predictions for the Slovak Republic and for Poland. For example, Terrell et al (1996) report that the presence of an unemployed spouse lowered the hazard of exit to employment of social assistance

<sup>19</sup> Vodopivec (2000) shows that worker and job flows in Estonia’s transition have surpassed those in most other transition economies, thereby contributing to the efficient reallocation of labor, and attributes that to deliberate policies aimed at stimulating job creation and employment, chief among them being low employment protection.

recipients by 72 percent for females and by 82 percent for males. Similar effects are reported for Poland by Boeri (1997).

*Aggregate effects.* The survey of the literature revealed only two studies explicitly addressing the link between the generosity of the unemployment benefit system and aggregate effects.<sup>20</sup> Investigating the link between unemployment and labor market institutions in 8 transition economies in the late 1990s, Cazes (2002) finds that overall and long-term unemployment rates were not significantly affected by the replacement rate and duration of unemployment benefit programs, but that – somewhat counterintuitively – a longer benefit duration had a significant positive association with the *youth* unemployment rate. Similarly, Boeri (1996) reports that in the early 1990s, no significant changes in the escape rate to jobs were associated with the reductions of the generosity of unemployment benefits in Hungary, Poland, and the Slovak Republic, but he also finds that in the Czech Republic (where more job opportunities existed) the policy shift did increase the intensity of escape rates. It also remains to be seen what are the long-term consequences of the introduction of traditional unemployment insurance in an environment of relatively strong labor unions and centralized wage setting – in particular, whether such arrangements will produce labor market outcomes similar to those in the countries of continental European Community (“Eurosclerosis”).<sup>21</sup>

## **5. CONCLUSIONS AND POLICY IMPLICATIONS**

To help the swollen ranks of the unemployed, all transition economies introduced new labor market programs, both income support programs tailored according to traditional unemployment insurance programs, as well as active measures. Because transition economies were ill-prepared for the emergence of large-scale unemployment, there is little

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<sup>20</sup> Riboud et al (2001) discuss the labor market outcomes of transition economies in the framework of policies and institutions, but stop short of econometric testing of the relationship.

<sup>21</sup> Theoretical models on unemployment persistence show that economies with UI systems experience larger and more prolonged unemployment following transient shocks. For example, Ljungqvist and Sargent (1997) develop a model to study the dynamics of two economies, one with an UI system and one without, when a transient economic shock is introduced. The non-UI economy recovers more rapidly as reservation wages adjust quicker and job search intensity is higher than in the UI economy. Nickell and Layard (1999) also show that unemployment benefits raise equilibrium unemployment.

doubt that the introduction of public cash benefit programs for the unemployed was warranted. Due to the unexpected and sudden occurrence of unemployment, individuals were unable to prepare for this event by self-insuring (for example, by saving) and self-protecting (for example, by choosing a more stable job); undeveloped financial markets made things worse. Moreover, the magnitude and the covariance of the shock rendered other private copying mechanisms (such as private transfers) inadequate.

The above review of their performance shows quite a positive experience with unemployment benefit programs. The evidence shows that in all transition economies included in our sample, unemployment benefits helped to redistribute income from the rich to the poor. Moreover, although not designed for this task, in some economies unemployment benefits strongly reduced poverty. Specifically, their impact on poverty was strong in countries where programs had broad coverage and where benefits constituted a sizeable share of household income. On the other hand, there is also evidence – as it is for developed economies – that unemployment benefits created work disincentives. (It is possible that the availability of unemployment benefits, by increasing labor costs and wage pressures, contributed to higher unemployment, and that it generated more persistent unemployment – but no such impact has been confirmed in the literature.)

How can these programs be improved? The above analysis suggests that – at least for those transition economies with weak administrative capacity – a flat benefit level (equal for all recipients) may be more appropriate than earnings-related benefit (equal to a certain percent of an individual's previous earnings). Flat benefits would not only foster redistribution of income from the rich to the poor and mitigate work disincentive effects, but also simplify the administration of benefits and reduce the scope for misuses. The above results on disincentives, together with the description of implementation problems faced by these programs, also suggest that transition economies should improve the administration of their benefit programs. This includes better monitoring of conditions for keeping benefits – including checking availability for work and concealed employment, enforcing job search (for example, by requiring proofs of job search) and providing adequate job-search assistance

through counseling, workshops, and job clubs.<sup>22</sup> To deter misuses of the program, the approach used by Western countries could be followed by (1) requiring recipients to regularly declare their casual earnings; (2) taking away a portion of the benefit beyond a certain threshold, in proportion to declared earnings; and (3) performing checks on the accuracy of declared earnings through cross-referencing administrative databases (for example, tax returns and work history data bases).

With the changing nature of unemployment – in the 1990s, the share of long-term unemployed increased in all transition economies – the problem of the limited benefit duration of unemployment insurance programs has become more prominent. Instead of increasing the maximum duration of unemployment insurance eligibility, one way to address this problem is by offering unemployment assistance to claimants who have exhausted their eligibility for unemployment insurance benefits, a practice which already exists in several transition countries. Although unemployment assistance does not necessarily create less work disincentives than unemployment insurance (Vroman, 2002), better targeting under unemployment assistance can generate savings, and its administration would not create excessive demands on increasingly sophisticated delivery systems of Central and Eastern European transition countries.

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<sup>22</sup> OECD (2000) reports several successful cases among OECD countries where more stringent enforcement of benefit eligibility criteria and stricter imposition of sanctions contributed to the reduction of unemployment.

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