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Wolfgang Franz

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Labor Markets in Transition:
Developments, Causes, and Cures

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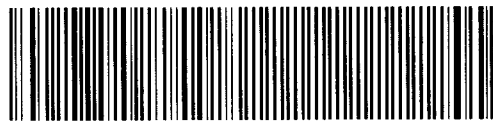
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in Transition:
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Central and East European Labor
Markets in Transition:
Developments, Causes, and Cures

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¹University of Konstanz (Germany), Council of Economic Experts in Germany, and CEPR. The views expressed in this paper are those of the author and do not commit any institution. I am very grateful to T. Büttner, B. Fitzenberger and K. Göggelmann for skillful research assistance. Thanks go also to T. Boeri, M. Burda, J. Köllö, L. Halpern and A. Welfe for their comments and help with the data.

Abstract

The main questions addressed in this paper are, firstly, how labor markets in the Visegard countries reacted to the breakdown of a command economy and the transformation to a market economy. Secondly, it is analyzed which way ahead is likely, or to put it differently, what should be done now to improve conditions in the labor market in these countries. A comprehensive survey of labor market developments in each country under consideration is offered at some length. A special emphasis is then put on the dynamics of employment and unemployment in order to identify key issues for the sources of the malfunctioning of these labor markets. Issues dealt with are then the wage formation process including institutional settings and income policies, active and passive labor market policies, and the structure of employment and output.

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1 Introduction

The major burden of the economic transformation in Central and Eastern Europe (CEE) is shared by the labor market. As of mid 1994 roughly four million persons are registered as unemployed in the countries under consideration, i.e. Czech Republic, Slovak Republic, Hungary, and Poland. Moreover, a considerable number of other people withdrew from the labor force such as the many who were forced to retire prematurely. These developments not only cause extreme personal hardship and a tremendous output loss, but are also the source of (potential) political unrest as is evidenced by the swing back to (former) communist parties in recent elections in Hungary and Poland (and also in East Germany which is not considered in this paper).

At the outset of the transformation large output losses occurred, the sources of which still being controversial. My reading of the literature and evidence suggests that they are caused by a combination of shocks, reallocation processes, and institutional failures.² The shocks stem from a credit squeeze partly due to a tight monetary policy beyond that needed for stabilization and from a depressed aggregate demand due to the breakdown of CMEA trade, partly offset by increased exports to Western economies. These shocks were followed by reallocation processes stemming from shifts in relative costs and demand components. However, this argument should not be put forward too far. Impediments to an efficient reallocation of production factors give rise to the suspicion that socialist economies are producing below their transformation curve. But in light of a high flexibility of real wages in CEE countries and, by and large, unchanged relative world market prices it is not obvious why output has fallen so much. Instead what one would expect from a liberalization of markets, even if that is carried out slowly, is a rise in production rather than a fall. Perhaps this aspect can partly account for the underestimation of actual output losses in CEE countries. Finally, institutional arguments concentrate on the institutional void after the old coordination mechanism was, more or less, abolished. The institutions encompass the entire body of laws, rules, and regulations governing, for example, the labor market as well as informal conventions and patterns of behaviour of bureaucracies and administrations.

Be that as it may, the main questions addressed in this paper are, firstly, how labor markets reacted to the breakdown of a command economy and the transformation to a market economy, and secondly, which way ahead is likely, or to put it differently, what should be done now to improve conditions on the labor market in CEE countries. It should be stressed at the outset, however, that this cannot be done by simply advising CEE countries to adopt the framework and functioning of, say, OECD labor markets. A brief look at OECD unemployment rates reveals immediately that OECD labor markets are anything but a shining

²See also Blanchard et al. (1994), Gomulka (1994), Portes (1994) and Schmieding (1993).

example for CEE countries: Guess what the reaction of the Czech Minister of Labor would be if an official from the EC were to tell him how to run his business. Notwithstanding all due and advisable modesty, CEE countries can learn from the failures of the functioning of Western labor markets and from various attempts to improve it, in order not to repeat mistakes which have been made there.

An assessment of CEE labor markets is clouded by several issues. Data on labor market developments are scarce and incomplete in CEE countries, and often not reliable given the state of statistical apparatuses. This caveat can be very serious in some cases. Secondly, CEE countries have in part substantial differences among each other. This observation holds not only for differences in initial conditions such as the macroeconomic performance, history of (unsuccessful) reform efforts, institutional and political framework, sectoral structure of output and employment, and the like. Also, CEE labor markets have undergone substantial changes at least since the beginnings of the transformation process. Both aspects call for a careful analysis of each CEE labor market.

The remainder of this paper is organized along these lines. In the next section a comprehensive survey of labor market developments in each CEE country under consideration is offered at some length. A special emphasis is then put on the dynamics of employment and unemployment in order to identify key issues for the sources of the malfunctioning of these labor markets (section 3). As has been mentioned the next relevant questions are then, firstly, what makes CEE labor markets different from each other, and, secondly, what makes them (still) different from those in OECD countries. Issues dealt with are the wage formation process including institutional settings and income policies, active and passive labor market policies, and the structure of employment and output. Finally, section 5 is devoted to an attempt to tackle the question: What now?

2 Labor Market Developments in Individual Countries: A Survey

This section is devoted to an overview of labor market developments in the individual countries under consideration. This analysis includes a brief quantitatively oriented stocktaking of the performance of each labor market as well as a critical assessment of three measures which are particularly important for reforms to establish a labor market: creating a legislative and institutional background which provides the framework for a labor market to function, setting up methods for wage formation, and dealing with unemployment where the emphasis is on long-term unemployment.³ It goes without saying that these measures are not mutually exclusive and do not capture each detail of labor market developments.

³See also OECD (1992), p. 71.

2.1 Czech and Slovak Republic

Czechoslovakia embarked on the transformation path with a memory of historical success before World War II and a terrible economic, political and social legacy from 40 years of communist dictatorship. At the brink of World War II, Czechoslovakia wound up with an average GNP per capita similar to that of Austria. While at that time the Czech GNP per capita exceeded that of Slovakia considerably, Czechoslovakia entered the 1990s with negligible differences in per capita GNP between these two parts, but with an average per capita GNP of about one-fifth of that of Austria.⁴

Attempts to reform the Soviet-type planning system culminated during the Prague Spring of 1968 (price liberalization, increased enterprise autonomy, workers' participation in enterprise management). After the 1968 invasion of Czechoslovakia by Warsaw Pact armies, central planning was restored. Moreover, at that time Czechoslovakia became a federation with significant autonomy accorded to the Czech and Slovak republics.

With an average growth rate of net material product of around 2 percent and a modest inflation rate (albeit underestimated), the eighties experienced a stagnation phase.⁵ Besides the general shortcomings of a command system, the deterioration in economic performance in Czechoslovakia was further aggravated by the isolation from world markets, an extreme orientation towards trade within the Council of Mutual Economic Assistance (CMEA),⁶ and a priority for heavy industry especially in Slovakia with an emphasis on the armaments industry. At the outset of its systemic transformation the Czechoslovakian economy was almost completely dominated by central planning – less than 0.5 percent of non-agricultural output was produced in the private sector.⁷ Although in contrast to Hungary and Poland it could not build on substantive earlier reforms, one advantage over these countries was the absence of serious macroeconomic imbalances. Inflation averaged less than 2 percent from 1980 to 1989, the monetary overhang and the net government debt were rather small in 1989.⁸

This was the background, when the first developments towards a restructuring began in 1987 by allowing greater independence for enterprises and reform in banking.⁹ Inspired by the Perestroika in the Soviet Union and since the “velvet revolution” of November 1989, people who broadly favoured a market-oriented

⁴See Svejnar (1993), p. 22.

⁵Dyba and Svejnar (1991).

⁶Except for Bulgaria, Czechoslovakia was more dependent on socialist trade than other CEE countries. Exports to and import from socialist countries made up more than 60 percent of total exports and imports. Czechoslovakia was therefore more vulnerable to the collapse of CMEA trade than Hungary and Poland. See OECD (1991).

⁷Source: OECD (1991), p. 12.

⁸See Begg (1991) for details.

⁹See Myant (1993) for a vivid description of the transformation process and its (personal) background.

transformation came into high offices, confirmed by the elections in June 1990. The Communist Party lost its power (retaining only 47 seats of 300 seats in parliament) to the advantage of the popular "Civic Forum" and "Public Against Violence" (170 seats). On September 1, 1990 the government formally submitted to parliament a "Scenario of Economic Reform" which was launched on January 1, 1991. Among other items it consisted of liberalizing 85 percent of producer prices (95 percent in June 1991), devaluing the Koruna (Kcs) and pegging it to a basket of five Western currencies (primarily the Deutsche Mark and the US \$), introducing internal convertability of the Koruna together with a 20 percent import surcharge (reduced and phased out in the course of time), controlling the growth of wages by an incomes policy (see below), activating a relatively well-developed safety net, cutting down budgetary expenditures (mostly involving consumer subsidies), and a determination to keep a tight monetary policy, with the latter measures being part of a package of restrictive macro policies.

2.1.1 Macroeconomic Performance

A short description of the macroeconomic developments is plagued by severe statistical problems. For example, estimates of growth rates of Net Material Product or GDP probably overestimate the actual decline because official statistics (in 1991) cover only enterprises with more than 100 employees, and the private sector is not captured at all. Although attempts have been made to correct for these deficiencies it is unclear how reliable these estimates are. Similar arguments hold for data on prices. Hence, the following figures can serve as order of magnitudes only.

Moreover, on January 1st, 1993, what was Czechoslovakia became two independent countries, the Czech Republic and the Slovak Republic, the former having roughly two-thirds of the population and land area of the former Federation. Therefore, as far as possible some emphasis is given to both Republics separately even before 1993.

As is displayed in tables 1 and 2 the process of reform did affect the two Republics in similar ways, but some important differences remain. In both states, the fall in real GDP and industrial production was substantial. Between 1990 and 1992 industrial production in the Czech and Slovak Republik declined by 37 percent, while the respective figure for real GDP growth is above 20 percent for both states. Since 1993, however, there are signs of an improvement in the Czech Republic with a slowdown in the fall of output and real GDP as opposed to the Slovak Republic. Differences also concern the fall in employment where the Slovak Republic was more hurt than the Czech Republic. Employment decreased by some 14 percent in the former state, but by roughly 8 percent in the latter, merely due to the rapidly developing private sector in the Czech Republic (see below). Unemployment became officially recognized in both Republics in the first quarter of 1990 with the unemployment rate always (much) higher in the Slovak

Republic than in the Czech Republic. Of particular interest and great admiration is, that unlike other CEE countries, unemployment in the Czech Republic has remained very low, below 4 percent on average between 1991 and 1993. This figure has to be contrasted with a 12, 11, and 14 percent unemployment rate in the Slovak Republic, Hungary, and Poland, respectively, during the same period of time (see tables 2-4). Moreover, the Czech Republic outperforms clearly unemployment figures for the EC (10 percent) or the total of OECD countries (7 percent) also for 1991-93.¹⁰

With respect to prices and wages both Republics experienced a tremendous price shock in 1991 with inflation rates of consumer prices around 60 percent (recall, however, the caveat made before). Inflation came down to 10 percent in 1992 for both states but spurts afterwards. Nominal wage growth amounted to 4 percent in 1990 and increased up to 16 percent in 1991 and between 20 and 24 percent in 1992/93 with no substantial differences between both Republics.¹¹ As a consequence, real consumption wages declined by around 40 percent in 1991 and increased by some 10 percent in 1992 and remained fairly unchanged in 1993. Labor productivity also experienced a sharp decline of 15 percent in 1991 with further declines in the Slovak Republic and stagnant development in the Czech Republic. This brings us to the question on how wages are formed in both Republics.

2.1.2 Wage Formation

The strict regulation of wages under the centrally planned system was already modified significantly at the beginning of 1990 when trade unions and employers were allowed to take active part in wage setting within a new system of industrial and labor relations.¹² The monopolistic communist party controlled "Revolutionary Trade Union Movement" ended its existence in March 1990 and the new trade unions formed the "Czech and Slovak Confederation of Trade Unions" (CSKOS). The CSKOS had 60 unions of which 19 were Czech, 20 Slovak and the remaining 21 covered the entire CSFR. CSKOS was reorganized into two national organizations after the partition of Czechoslovakia in January 1993. Trade unions, independent of political parties and state authorities, were established from the bottom up. These developments were legalized by the 1991 Law on Collective Bargaining which, in addition, set procedures for collective bargaining, accorded workers certain rights, and established a system of final settlements of disputes by courts. Union membership in 1993 was still high at 65 percent but the growing

¹⁰Source: OECD Economic Outlook 55 (June 1994), p. A24. Note, however, that these figures refer to standardized unemployment rates and are not strictly comparable to those of the Czech and Slovak Republic.

¹¹Source: Ham et al. (1994a), table 1.

¹²See Ham et al. (1994a) on which this para draws.

private sector will probably erode this.¹³

In 1991 the government created the "Council for Economic and Social Agreement" (CSEA) which is a tripartite assembly. The government is represented by the Federal Ministry of Finance. The two other parties are the CSKOS and a number of employers' associations such as the Union of State Enterprises, the Union of Private Entrepreneurs, the Union of Industry, the Union of Construction, and the like.

The main task of the CSEA is to conclude a general agreement which formulates wage guidelines for average and minimum wages. Having made decisions of this kind at the national level, there is not much room for lower-level bargaining over wages in excess of the norm nationally agreed upon. More specifically, the CSEA has established a grid of base wages which form the basis for wage setting in state enterprises. For large enterprises there exists a maximum of 12 wage levels; 7 levels are distinguished for blue-collar workers. For small enterprises only 6 levels are allowed. Outstanding specialists may have their wages set separately outside of the grid. The wage grid is to be unified for all industries but mining.

This process of wage formation in form of guidelines was enforced by an excess wage tax on the enterprise's wage bill. Employers whose wage bill growth exceeded the targets were penalized in the following way: A tax of 200 (750) percent of the amount of the wage bill increase above the norm applied if growth of the wage bill was between 3 and 5 percent (more than 5 percent) above the target. This penalty was reduced in 1993 in the Czech Republic (and abolished in the Slovak Republic). Now firms whose average wage grew between 15 and 30 percent above the previous year's rate were to pay a fine equal to 100 percent of the wage bill increase above 15 percent and an additional penalty equal to 200 percent of the wage bill in excess of 30 percent. This penalty tax was, however, not levied throughout the whole time period. In the first half of 1992 and 1993 wages were left unregulated because the CSEA could not reach an agreement earlier (in 1992) or at all (as in 1993 when the regulation was imposed in the Czech Republic by a decree of the government against the opposition of the union and employer representatives).

Both, the targets and the coverage changed between 1991 and 1993. For example, in 1991 regulations covered only non-private firms with more than 25 employees. The July–December 1992 scheme covered enterprises with 50 percent or more state or municipal share ownership; state owned enterprises with more than 30 percent share of foreign capital were not subject to the regulation. Coverage was expanded in the July–December 1993 scheme to include all state or privately owned firms with more than 25 employees. In 1991 targets were set at 5 percent for state-owned enterprises and 6 percent for public administration. In 1992 targets were set according to the firm's level of efficiency in the sense that firms with higher profit-to-cost ratios were allowed a more rapid wage growth. For example,

¹³Burda (1993), p. 114.

the target growth rate for wages was 16 (12) percent for firms with ratios higher than 12 (between zero and 12). In 1993 the target was left undifferentiated and amounted to up to 15 percent over the previous year.

As has been mentioned the CSEA defined minimum wages, too. In 1991 the minimum wage was set at 2000 Koruna per month which is about 52 percent of the average wage.¹⁴ This ratio declined to 37 and 43 percent in the Czech and Slovak Republic, respectively, in mid-1993 (2,200 Kcs and 2,450 Kcs, respectively).¹⁵ Originally, it was planned to index minimum wages. But this measure was not implemented.

Unlike Poland industrial relations are remarkably peaceful. There are several reasons for this. First, the Law on Collective Bargaining of 1991 gave workers the fundamental right to strike but put limitations on it. A strike is illegal before the parties go through mediation and, if mediations turn out to be unsuccessful, the parties must consider arbitration. Moreover, at least 50 percent of workers must vote for a strike before the union may officially declare it. Second, in firms with over 200 employees, a system of codetermination exists by which workers can elect up to a third of the supervisory board. However, workers' councils are absent.¹⁶ Moreover, the employer is obliged to inform and consult with the trade unions on proposed measures which are likely to affect the work force such as redundancies, working conditions and the like. Third, the CSKOS is not a political force like the "Solidarity" in Poland. It has no tradition of fighting for workers' rights, and most of its officers were new to their jobs. Perhaps workers' preferences for job security have outweighed wage demands.¹⁷ Fourth, while the Law on Employment gives employers full rights over hiring, the termination of employment is more difficult. The Labor Code specifies circumstances under which workers can be laid off, stipulates minimum notice periods (2-3 months) and forces the employer to attempt to find suitable alternative work or, if that is unsuccessful, to actively assist the state in finding a new job for the former employee (at least he has to notify the local labor office about impending lay offs).

2.1.3 Employment and Unemployment

Tables 1 and 2 display the development of employment in the Czech and Slovak Republic, respectively. In total, the Czech Republic experienced a decline of 8 percent between 1989 and 1993 while the respective figure for the Slovak Republic is 14 percent. If these figures refer to industry, then it can be seen that they

¹⁴The official exchange rate in August 1991 was 31 Koruna per US \$.

¹⁵Sources: Commission of the European Communities, Employment Observatory for Central and Eastern Europe, Nr. 5 (1993), p. 38; OECD (1991), p. 136, and Ham et al. (1994a), pp. 29-30.

¹⁶Burda (1993), p. 114.

¹⁷See Raiser (1993), p. 20.

are much higher, namely 25 and 23 percent for the Czech and Slovak Republic between 1990 and 1993. Put differently, the fall in employment in industry has been partly compensated by new jobs in other sectors. Table 5 gives some insight into the sectoral distribution of output and employment. We observe a declining share of employment in agriculture and industry but an increasing share in a broadly defined service sector. By and large, this fact holds for all CEE countries under consideration. However, remarkable differences of sectoral shifts between these countries exist. To some unknown extent, they are the result of differences in defining sectors but this can hardly explain the roughly 7 percentage points increase of the share of the service sector in the Czech and Slovak Republic compared with a more than 10 (20) percentage points increase in Hungary (East Germany) and the slight increase in Poland.

If employment is to be broken down by ownership, reliable data exist for the Czech Republic only.¹⁸ While in 1990 some 93 percent of all workers were still employed in the state sector (1985: 99.7 percent), this share declined to 69 percent in 1992. Hence, as of end-1992, roughly one third of the workforce is employed in the private sector. It is guess-estimated that the private sector has been growing more rapidly in the Czech Republic than in the Slovak Republic (Ham et al. (1994), p. 33).

Despite its decline, employment has so far declined less severely than output. This points to a continuing or even accentuating practice for labor hoarding in state-owned enterprises. This is confirmed by the figures on declining labor productivities as shown in tables 1 and 2. Estimates of labor hoarding range between 12 and 30 percent of total employment.¹⁹

By definition, unemployment is the difference between the labor force and employment. In order to sort out different hypotheses about the development of unemployment, a short inspection of figures on the time pattern of the labor force may be helpful. To begin with, tables 6 and 7 display a declining labor force for both Republics. Although the working-age population increased between 1989 and 1992, this was more than offset by a growing number of inactive people, especially females. Table 7 shows a substantial fall in female labor force participation rates of 12 (7) percentage points in the Czech and Slovak Republic, respectively, whereas male participation rates decline by 4 percentage points in both Republics. Given an equal share of women of about 45 percent in both Republics in 1992, the decline in female labor force participation affected the Czech Republic more in that unemployment is lower there *ceteris paribus*.²⁰

While a comparison of joblessness and its dynamics between various CEE countries is relegated to the next chapter, some basic information on the development

¹⁸See Ham et al. (1994a), table 8.

¹⁹Source: Ham et al. (1994a), p. 31.

²⁰This does not exclude the possibility that the incidence of unemployment is higher for females in the Czech Republic than in the Slovak Republic, see Ham et al. (1994a). See also section 3.

of unemployment in the Czech and Slovak Republic is presented here very briefly. As has been mentioned already and is shown in tables 1 and 2 unemployment in the former country amounts to roughly one third of the latter. The unemployment/vacancy ratio is even worse for Slovakia.²¹ As of 1993 the share of long-term unemployment amounts to more than one half in the Slovak Republic compared with about 10 percent in the Czech Republic. This not only constitutes a major challenge to labor market policies in Slovakia but raises again the question as to why both Republics wind up so differently. Indeed, reviewing the literature gives the impression that the aforementioned advantages of the Czech Republic could be explained by successful active and passive labor market policies.²² This leads us to the question of how these policies were implemented.

2.1.4 Labor Market Policies

The unemployment compensation scheme as a measure of passive labor market policy is considered firstly. It was put in place by the government in January 1990 and was altered in 1991 and, again, in 1992. In its 1990 version entitlement was granted to anyone who was laid off, graduated from school, or took care of a handicapped relative or a child (up to three years of age). Duration was limited to one year and benefits were granted according to the following schedule:²³ 90 to 65 percent of the individual's net average income over the previous year depending on the reason for being laid off for the first six months (1,000 Kcs for those looking for work for the first time); 60 percent for the second half year; 70 percent if in training. Unlike in Western systems there was neither a ceiling nor a requirement on the minimum number of months the person had to have been employed prior to receiving benefits. Hence, the scheme was relatively favorable.

A first change was brought about in January 1991 by a reduction of the replacement ratios to 65 to 60 percent, 50 percent, and (unchanging) 70 percent, respectively and according to the above classification. More restrictions came into effect in January 1992. Entitlement was shortened from one year to 6 months (except for those undergoing retraining) and the replacement ratio for those laid off for redundancy was reduced to 60 percent for the first 3 months but kept at 50 percent for the next 3 months. A ceiling of 3,000 Kcs per month was introduced, too. This and the minimum were changed in 1993 in accordance with increases in the minimum wage. Moreover, since 1992 those who quit their job and school leavers are no longer eligible and benefits were granted only to those "real unemployed able and willing to work" (Uldrichova and Karpisek (1994), p. 119). Benefits are untaxed and moonlighting is not permitted.

²¹Note that employers are legally required to register vacancies at the labor office.

²²See, for example, Ham et al. (1994a), Raiser (1993).

²³See Burda (1993), Ham et al. (1994a), Scarpetta and Reutersward (1994), Uldrichova and Karpisek (1994).

Due to the more restrictive entitlement and since more and more unemployed exhausted their entitlements but continued to be unemployed, the ratio of individuals receiving benefits among all unemployed declined between December 1991 und the third quarter of 1992 from 72 (91) percent to 46 (35) percent in the Czech (Slovak) Republic. Of course, the much lower ratio in Slovakia is due to the extremely high share of long-term unemployment there (see above). Those unemployed who have exhausted their entitlements are provided with social assistance benefits which are means-tested and have an indefinite duration.

Labor market policies were entirely financed by the creation of a special reserve within the State budget in the Czech and Slovak Republics until January 1993, when employers' and employees' contributions were introduced.²⁴ The new law adopted on social insurance and unemployment benefits stipulates compulsory employer contributions of 3 percent of the total payroll, employee contributions of 1 percent of pre-tax income, and 4 percent of pre-tax income for the self-employed.²⁵

Turning to active labor market policies and judged by the breakdown of expenditures for several active labor market policies, job creation schemes accounted for more than three-fourths of all expenditures in Czechoslovakia in 1992 while the respective figure for training is 7 percent only.²⁶ The total budget for employment policies amounted to 0.3 and 0.4 percent of GDP in the Czech Republic in 1991/92 compared to 0.9 and 1.9 percent in the Slovak Republic. The budget for labor market programs grew in 1992 but was cut back in 1993 (in both Republics).

Prior to the partition of both Republics, the Federal Ministry of Labor and Social Affairs worked in close cooperation with the ministries of both republics which were responsible for establishing a delivery mechanism for labor market policies. In this context, labor offices were set up in all districts, they are responsible for employment policies including information on job availability, mediating and consulting, arranging for retraining, initiating and supporting the creation of new jobs, and managing funds allocated to employment policies.

Three types of jobs are created under this scheme:²⁷ (i) New jobs created at existing work places. Financial support is available in the form of loans, interest payments on loans, and subsidies. This form of active employment policy was by far the most frequently used in 1991 und 1992. By the end of 1992 almost 105,000 unemployed were placed, over 80 percent of which were created in the private sector. (ii) New jobs for those unemployed wishing to start their own small business. (iii) New jobs at existing work sites for selected categories of unemployed.

Support for employment in small (up to 24 employees) and medium-size en-

²⁴Scarpetta and Reutersward (1994), p. 258, fn.8.

²⁵Source: Uldrichova and Karpisek (1994), p. 125.

²⁶Source: Commission of the European Communities, Employment Observatory for Central and Eastern Europe No. 4 (1993), p. 27.

²⁷See Uldrichova and Karpisek (1994) for the following description.

terprises (up to 500 employees) was gradually transformed into a government program in 1992. Methods of support were credit guarantees, contributions to interest payments, or instalment postponements. Several sub-programs exist such as for start-up business, expansion, selected economically and socially weaker regions, or for science and technology support.

Finally, "publicly useful works" which are created by the community or employers have gradually become a very active employment program for job creation. Under this scheme, short-time jobs (up to 12 months in the Czech Republic and up to 6 months in the Slovak Republic) are offered to less skilled and long-term unemployed and especially for maintenance activities. Many employment offices also use this program as a means of testing an unemployed individual's willingness to work.²⁸

Retraining programs are commonly organized by local labor offices which offer specific skills or generic programs as a function of local labor needs. Labor offices sign agreements with job seekers about the retraining program and with suitable training centers, and cover some of the costs.

2.2 Hungary

In contrast to other CEE countries, economic reforms in Hungary can be traced back not later than 1968. Therefore, the transition to a market economy in Hungary can draw on two decades of prior economic reforms. This may explain, why Hungary did refuse to implement a big-bang solution as, for example, in Poland but preferred a gradualist, step-by-step approach. While economic reforms in Hungary often have been labelled as a "success story", the economic problems, especially on the labor market, Hungary is facing now are more complex and contentious than those that confronted the country in 1989. By the end of 1993, the unemployment rate in Hungary was more than 12 percent, which is in the vicinity of the figures in Poland (15.7 percent) and the Slovak Republic (14.4 percent) but extremely high compared with the Czech Republic (3.5 percent).²⁹ This is anything but the outcome of a success story. What went wrong and why?

To begin with a very brief summary of the reform process in Hungary, analysts usually firstly refer to the "New Economic Mechanism" established in 1968.³⁰ However, according to Miszei (1993), the core event was 1956, after which the Hungarian Socialist Workers' Party, out of fear of the people, pursued a much more consumer-oriented policy throughout the next three and a half decades than any other communist country. The avoidance of any major collision with Soviet geopolitical interests was the reason why the continuity of diverging from the Soviet-type economy was not interrupted unlike in Czechoslovakia in 1969

²⁸Ham et al. (1994a), p. 47.

²⁹Source: OECD Economic Outlook Nr. 55 (June 1994), p. 118.

³⁰See Hare and Révész (1992), Raiser (1993).

and in Poland in 1981. As the result of the gradualist reform path, Hungary, by the time of the collapse of the Soviet Union, was already a more westward-looking country than any other in CEE with a semi-Western consumerism.

The New Economic Mechanism includes several measures.³¹ Plans were no longer broken down to the enterprise level, partial autonomy was given to state-owned enterprises, and private agriculture started. After a period of retreat from reform in 1971, the eighties experienced a price reform simulating "world prices" (1980), the legalization of small private firms (1981), the liberalization of tourism (1982), the introduction of self-governing companies (1985), extensive price liberalization and tax reforms (1988).³² A third wave of reforms started in 1989 with import liberalizations and export licences extended to companies. Trade union privileges were restricted and the communist party removed from workplaces. Officially directed privatization started in 1990 (there was some spontaneous privatization since 1988).³³

As has been emphasized by Bauer (1992), the programs proposed by the Hungarian political parties reflect a substantially different attitude. In early 1989, the Alliance of Free Democrats introduced the term "systemic transition" ("rendszeroáltás") as an alternative to "reforms". The latter term simply means to change many features of the system while maintaining social ownership and the one-party rule. In turn, systemic transition refers to a removal of the old economic (and political) structures and the introduction of a Western-type market economy. The majority of political forces opted for a market economy in which private ownership prevails.

With respect to reforms concerning the labor market, the Hungarian government introduced a variety of measures in the second half of the 1980s. At that time the prevailing low level of unemployment was regarded as being frictional and transitory in nature. Those measures included an unemployment benefit system and an early retirement scheme as well as active policies such as employment services, training programs, and job creation schemes (see below). In light of the increasing rate of unemployment at the beginning of the 1990s labor market policy was redesigned in early 1991.

2.2.1 Macroeconomic Performance

Taken together, Hungarians have been acquainted much earlier with market mechanism compared with their communist neighbours. Moreover, Hungary's industry has been tested against Western competitors to a greater extent. But the pre-1990 Hungarian governments were still prone to discretionary paternalistic inter-

³¹See Hare and Révész (1992) for details.

³²By the mid 1980s, the share of market transactions not subjected to price controls amounted to about 40 percent, by 1990 this had been gradually expanded to 90 percent of all products, see Falk and Funke (1983), p. 194.

³³See, for example, OECD (1993) for details.

ventions, which mostly preserved soft budget constraints for enterprises, leading to a suboptimal incentive structure in the economy. Thus, real GDP growth stagnated throughout the 1980s, averaging 1.8 percent between 1982–88, while inflation gradually increased to reach 28 percent in 1990.³⁴ Foreign debt doubled between 1985 and 1990.

In the 1990s transformation, while still somewhat eclectic, has accelerated (price reforms, import liberalization). In addition, the macroeconomic situation has changed dramatically.³⁵ The external situation is now of much less concern; foreign exchange reserves have strengthened substantially, net external debt has dropped, and Hungary enjoys an improved access to international capital markets. However, inflation still remains a concern. What is strikingly different is the burgeoning fiscal deficits and the downturn of the level of economic activity, although the decline in output of 15 percent in 1991–92 is likely to have been exaggerated by the GDP statistics.³⁶ Hungarian industrial producers have confronted several shocks since 1989 such as the liberalization of trade, the removal of subsidies, the collapse of trade among CMEA members, and the 1992 laws on bankruptcy and financial institutions with their accompanying effect on the credit environment of firms.³⁷

Turning to wages and prices, the growth of nominal wages accelerated steadily between 1983–1988 but this has been a slow process. However, real consumption wages, with rare exceptions, decreased steadily, too, throughout this time period.³⁸ This situation changed since the third wave of the transformation process after 1988. Nominal wages increased at a rate of 18 percent in 1989 and jumped to rates between 20 and 30 percent between 1990 and 1993. These increases, however, were compensated by price increases of the same order of magnitude. Hence, there was virtually no change in the real wage rate in 1989/90 and a slight decrease, on average, in the period afterwards. This leads us to the question of how wages are determined in Hungary.

2.2.2 Wage formation

At the outset, however, the importance of the shadow economy has to be emphasized. According to country-wide representative time-budget surveys of 1976/77 and 1986/87, the ratio of time spent in the informal sector increased from 29 to

³⁴See Raiser (1993).

³⁵See OECD (1993).

³⁶For example, the coverage of output and employment statistics was restricted to enterprises with 50 or more employees until the end of 1992. Beginning in 1993 the coverage was extended to firms with 20 or more employees. Large revision to preliminary 1991 estimates were made in 1993.

³⁷OECD (1993), p. 95.

³⁸Source: Mizsei (1993), pp. 147–50. To give a few numbers, average nominal wage growth between 1983–88 was 7.3 percent with a range of 4 to 10 percent. Real consumption wages decreased on average by 1.3 percent with a range of –4.9 to +1.9 percent.

36 percent; participation rates for men (women) in the second economy grew from 38 to 46 percent (36 to 38 percent).³⁹ This explains why the ratio of wages and income originating from the first economy in terms of total income has been gradually declining. Despite the considerable decline in real wages, there is empirical evidence that real income and consumption did not slow down in a parallel fashion. Spheres of the informal economy not only include traditional workplaces in small-scale agricultural production, house-building activities, and services, but more recently, also white-collar activities such as typing at home, counselling, telephone services, and the like.

In describing the methods of wage determination in Hungary, we can confine ourselves to the national and enterprise level, respectively, since branch level collective bargainings are virtually absent. After the late 1960s, under state socialism, wages were formed in a two-step procedure. At the national level tripartite negotiations developed between the government, the Chamber of Economics, which represented state enterprises, and a single trade union, the Communist National Council of Trade Unions (SZOT). Unlike Western economies the outcome was less a collective agreement, and more a battle over wage funds distributed to the state enterprise level where, according to Köllö (1993), some workers had more everyday power in bargaining over effort with their managers.⁴⁰

While maintaining the two-level approach, wage determination changed substantially after 1988. The SZOT transformed itself into the "National Confederation of Hungarian Trade Unions" (MSZOSZ) in 1989. However, not all former SZOT unions joined the MSZOSZ. Hence, several trade union bodies (seven in 1993) compete for membership. Despite the break-up of the previous system of quasi-automatic membership, trade union membership remains fairly high, at around 60 percent.⁴¹ Employers have also established a number of associations. The Chamber of Economy has gone through a transformation process, where some of its departments have separated, while new organizations have been founded. In addition, at the national level the "National Council for the Reconciliation of Interests" (NCRI) was created which, after a short break, reappeared in August 1990 as the "Council for the Reconciliation of Interests" (CRI). Without going into details, both the NCRI and CRI were, by and large, tripartite institutions. Key issues for the CRI were wage determination and minimum wages, but the CRI served more as a forum to discuss these issues. For example, as the parties could not reach a consensus about the extent of a liberalization of wage determination, the government extended the validity of previous wage mechanisms.

At the enterprise level, the new Labor Code, which took effect in July 1992, stipulates that a work council should be elected in every enterprise with more than 50 employees. The council must be consulted by the employer for any decision

³⁹Source: Lado et al. (1991).

⁴⁰Source: OECD (1993), p. 179.

⁴¹Source: OECD (1993), p. 179.

affecting a substantial group of employees (reorganization plans, privatization, vacation plans, etc.). With respect to wage formation at the enterprise level two developments deserve attention. First, enterprise-level collective bargaining has become much freer in the last years. In its 1993/94 Economic Program the government stipulates that wages will be freely determined at the firm level in the competitive sector. Moreover, the number of local worker organizations increased and strengthened their influence. Cooperation among different trade unions exists but is not without tension. Second, wage determination was integrated into the profit taxation system. More specifically, firms exceeding a certain amount of wage growth had to add the sum above that ceiling or the whole increment to their pre-tax profit, i.e., were liable to a 54 percent flat-rate profit tax. In 1990, those firms between 18 and 28 percent wage growth had to add the sum above 18 percent, while firms increasing their wage bill beyond 28 percent had to add the whole increment. The regulation in 1992 was more complicated as it was not clearly established at the outset but depended on the behavior of all firms. If the average level of wage growth in the economy did not exceed 23 percent, no such a regulation would apply. If it did, however, the firms exceeding the aforementioned 28 percent were subject to the same regulation, i.e., they had to add the whole increment to their profits. Moreover, if the inflation rate was above 21 percent, the CRI was to decide at the end of 1992 about the appropriate adjustment of these key numbers.⁴² In that year the regulation applied to any firm with more than 10 employees, whereas in 1990 joint ventures were exempted (besides firms with an annual wage bill less than 20 million Forint). In 1993 these wage taxes were abolished.

As has been mentioned, the NCRI and CRI decide upon a minimum wage. Although increases of the minimum wage considerably exceed nominal wage growth it is below the official minimum subsistence level. In 1993, the minimum wage was set equal to 9,000 Forint per month which is about 30 percent of the average wage.

The right to strike was legalized in March 1989. Until now strikes have been limited in terms of the number of workers involved. Most of the strikes have been warning strikes lasting only for 2 hours (with the exception of the blockade of taxi drivers in October 1990).⁴³

2.2.3 Employment and Unemployment

During the period 1989-93 total employment decreased by about 24 percent (see table 3). According to OECD estimates private sector employment doubled between 1989 and 1991 and accounted for 15 percent of total employment in 1991. But this figure is to be taken as a guess estimate. The decline of employment in

⁴²Miszei (1993), p. 150.

⁴³Lado et al. (1991), p. 38.

agriculture accounts for nearly one half of total employment loss. Employment in industry declined 34 percent from 1990 to 1992 with mining and metallurgy as the main losers. For industry as a whole, average labor productivity has fallen by 16 percent between 1988-92 indicating that there has not yet been a substantial reduction of the amount of overmanning.⁴⁴ On the other hand the increase in private employment mostly stems from new jobs in small units involving the self-employed and their employees. It is estimated that the number of self-employed increased from 412,000 in 1989 to 630,000 in 1993.⁴⁵

Registered unemployment was virtually absent prior to 1990 but then increased to more than 600,000 persons in 1993, which means an unemployment rate of more than 12 percent. Roughly speaking, the aforementioned number of unemployed persons is the result of a decreasing number of employees in the order of 1.2 million people, partly offset by a growing number of self-employed (200,000) and a decreasing labor force of about 400,000 people. The decline of the labor force stems mainly from reductions of labor force participation rates from 85 to 79 (79 to 71) percent for males (females). Long-term unemployment is becoming steadily more important and amounts to about 30 percent of all unemployed in 1993. The same holds for youth unemployment with a rate of 22 percent in 1993, where male youths are slightly overrepresented.⁴⁶ These figures raise the question of active and passive labor market policies.

2.2.4 Labor Market Policies

To begin with some remarks on the institutional framework, the establishment of a nation-wide network of employment offices started in 1985. First, their activities focussed on placement-related tasks. As the labor market situation worsened responsibilities were extended to organizing public work programs, retraining courses, and the administration of the unemployment compensation system. In February 1991 a new Employment Law was enacted which introduced changes in both labor market policy and financing. With respect to the latter, a "Solidarity Fund" and an "Employment Fund" were established. While the Solidarity Fund is to cover unemployment compensation, expenditures associated with the employment services, and partly, training programs and early retirement scheme, the Employment Fund finances active labor market programs.⁴⁷ The rules for allocation in the Employment Fund are determined by a "Labor Market Committee" as the highest body of conciliation of employment issues among representatives of employers, employees, and the central government. This tripartite Labor Market

⁴⁴ibidem p. 22.

⁴⁵Source: Commission of the European Communities, Employment Observatory Central and Eastern Europe Nr. 5 (1993), p. 35.

⁴⁶Source: ibidem pp. 32-37.

⁴⁷In 1992, the Employment Fund had a budget of 16,5 billion Forint, while the Solidarity Fund was planned to have 42 billion Forint. Source: Mizsei (1993), p. 152.

Committee acts as a special subcommittee of the CRI mentioned before. Moreover, the Employment Law established tripartite "County Labor Councils" to conciliate at local levels and to actually determine how resources allocated from the Employment Fund should be used. The County Labor Council is self-governed; the Ministry of Labor has only an observer status.⁴⁸

Expenditures on active and passive labor market policies as a fraction of GDP rose from 0.5 percent in 1990 to 1.2 percent in 1991 and nearly 3 percent in 1992. The latter figure outperforms all other numbers for CEE countries ranging from 1 percent in Czechoslovakia and 2.3 percent in Poland. This ranking (with respect to Hungary) still holds if those expenditures are adjusted for different unemployment rates. However, despite the substantial rise in the total amount spent between 1990 and 1992, there was a significant reduction in average expenditure per person unemployed.⁴⁹ The Solidarity Fund is partly financed by contributions from the employees and employers, with currently 2 and 7 percent of gross wages, respectively. Despite these contributions, the Solidarity Fund relies increasingly on direct transfers from the State budget (roughly one-third in 1992).⁵⁰ The Employment Fund is financed entirely by state budgets.

The Hungarian unemployment insurance system has undergone many changes.⁵¹ A first attempt dates back to 1986. A "re-employment benefit" was introduced at a time when open unemployment was not yet officially acknowledged. Eligibility was restricted to those workers formally dismissed (prior to 1988 lay-offs must have involved 10 or more persons at the same time). From January 1989 until February 1991 unemployment compensation, up to a period of 2 years, was available for all those whose last employment relationship terminated less than 12 months ago and who had a total of at least 18 months of employment relationship within the previous 3 years. Moreover, a lack of a suitable vacancy was another precondition. Benefits ranged between 60 and 70 percent of previous average monthly earnings depending on the reason for unemployment (redundancy: 70 percent; resignation without prior notice by the employee: 60 percent). The replacement ratio declined by 10 (25) percent after 6 (12) months. While these regulations look rather generous, it has to be recognized that, in the first quarter of 1990, about 60 (90) percent of the unemployed (long-term unemployed) received benefits below the level of the minimum wage (see above).

The Employment Law of 1991, mentioned before, brought about several important changes.⁵² Eligibility has been extended to the young graduated from high school or university, the duration varying from 6 to 24 months depending on the employment record in the last 4 years, base earnings being defined as the

⁴⁸See Fajth and Lakatos (1994).

⁴⁹Source: Commission of the European Communities, Employment Observatory Central and Eastern Europe Nr. 4, pp. 24-31.

⁵⁰OECD (1993), p. 182.

⁵¹See Lado et al. (1991), pp.31-32 for this para.

⁵²The following information is taken from table 1 by Micklewright and Nagy (1994), p. 22.

last monthly basic wage plus bonus payments in the previous 12 months, and the benefit set at 70 percent of base earnings for the first half of entitlement and at 50 percent for the second. Moreover, benefits must not fall short of the minimum wage except when previous earnings have been less than the minimum wage (then the benefit equals previous earnings). Further changes occurred in 1992 and 1993. The 1993 scheme cut down the total duration of entitlement to half of the 1991 scheme, set benefits at 75 percent of base earnings for the first quarter of entitlement and at 60 percent for the rest of entitlement with a maximum benefit of 18,000 (15,000) Forints per month in the first (second) period and a minimum benefit of 8,600 Forints (exception mentioned above holds),⁵³ and extended the waiting period following a voluntary quit to 6 months (rather than 3 months as in 1991). Note, however, that the unemployment insurance system in Hungary embodies the "grandfathering principle", i.e., a claimant receives benefits under the rules applying on the day of the claim and, hence, is not affected by the introduction of modified schemes. For example, Micklewright and Nagy (1994) estimate that only 1 in 5 persons with benefits in April 1993 received that payment under the rules introduced in January of that year.

Estimates by the same authors show median ratios of gross benefit to gross (indexed) previous earnings in March 1992 of 65 (78) percent for men (women). Allowances for deductions increased these medians by up to 10 percentage points. Note, however, that, in practice, in no scheme has there been indexing of base period earnings to allow for wage inflation (around 25 to 30 percent annually in 1990-92) nor is there indexing of benefits payments during such a period, except via changes in the minimum wage.⁵⁴

Income support to the unemployed has a two-tier structure. The first involves benefits as described above. At present, those who are no longer entitled to unemployment benefits are covered by a social assistance scheme, provided that their per capita family income is below the existing minimum pension level. Social assistance can supplement income of the unemployed person so as to bring it to a level equal to 80 percent of the minimum old age pension.⁵⁵

Active labor market policies in Hungary concentrate on job creation schemes, training, and assistance for new business; in terms of percentages among total expenditures for active market policies, the figures for 1992 are 34, 22, and 19 percent, respectively.⁵⁶ More specifically, a job creation scheme was introduced in

⁵³Note that the average nominal monthly earnings in 1993 amounted to 27,100 Forints. (Source: OECD Short-term Economic Indicators for Transition Economies). In June 1993 1 US \$ equalled 90 Forints.

⁵⁴See Scarpetta and Reutersward (1994).

⁵⁵OECD (1993), p. 182. In March 1992 there were around 20,000 recipients of these social benefits (including those who received a flat-rate "Career Beginner's" benefit for young people joining the labor market), compared to around 370,000 unemployment benefit recipients. Source: Micklewright and Nagy (1994), p. 3 (footnote).

⁵⁶Source: Commission of the European Communities, Employment Observatory for Central

1988. The main tool was a preferential loan, or, in some cases, grants, tied to job-creating investments in regions with labor in substantial excess supply. According to official reports some 10,000 jobs were created under this program.⁵⁷ A public work scheme was first launched in four counties as an experiment in 1987, and then extended nationwide in the following year. It provides the unemployed with temporary work (such as clearing away unauthorized dumps, drainage, forestation projects, gardening, maintenance jobs in public places and buildings). In 1992, 20,000 participants worked under this scheme. It is financed jointly by the government (70 percent) and the counties concerned (30 percent), and implemented by local authorities.

Parenthetically it should be mentioned that several, partly generous, but exceptional programs were introduced.⁵⁸ They suffered from limited accessibility, however. Examples are, first, "Crisis Intervention" created in 1991 which basically was a subfund of the Employment Fund for "managing crises situations in employment" without following the decentralized, and more complicated resource allocation of regular programs. Secondly, in mid-1992 "Employment Societies" or limited liability companies were financed which employed unemployed laid off from certain large industrial firms. Assistance included measures such as a formal employment at the societies providing 80 percent of the former wage.

The largest share of active labor market expenditure was devoted to start-up loans as an assistance for new business, also introduced in 1988. This program offered the unemployed financial assistance in creating their own private enterprises or self-employment activities. The support included a bank loan of up to 400,000 Forints (roughly 5,700 \$) with no interest payments for the first four years. Interest was paid by the Employment Fund. The program became very popular, indeed. The number of participants increased rapidly, due to a lifting of many restrictions, from 8,000 in 1988 to 21,400 in the first half of 1990. Even already established entrepreneurs, who were often not well served by the banking system and capital market, benefitted from this scheme.⁵⁹ Spending for this program exhausted a large part of the budget of the Employment Fund and, as a consequence, this measure was abolished in mid-1990. Expenditures of this type after that date are simply the repayment of interest by the Employment Fund. The successor of the start-up loan scheme was a new program launched in 1991 to provide support for the unemployed who start enterprises. Unemployment benefits can be used for self-employment and are extended for six months. Moreover, the program offers up to 50 percent reimbursement for special counselling and training to assist in the starting of a new business.

Programs designed to provide retraining assistance can be traced back to 1983.

and Eastern Europe Nr. 4, p. 27.

⁵⁷Source: Lado et al. (1991), p. 15.

⁵⁸See Fajth and Lakatos (1994), pp. 173-175.

⁵⁹Lado et al. (1991), p. 15.

At that time, they aimed to facilitate the retraining of workers involved in "organized labor transfer" programs between enterprises, i.e., for workers who lost their job due to enterprise reorganization and were subsequently channelled, by placement offices (see above), to other employers. In the course of time these measures were extended to promote retraining programs carried out by enterprises for their own workers (1985) and to include assistance for those at risk of losing their job and the unemployed (1987). The institutional framework was modified in 1991. A "National Training Council" was established with its own network (the local "Manpower Development and Training Centers"). Courses are organized by a semi-independent body whose budget is controlled by the employment offices. Expenditures for these schemes rose from 17.8 to 22.3 percent of all expenditures on active labor market policy between 1991/92 and the number of participants more than doubled (26,000 and 58,000 persons, respectively).⁶⁰

Measures for certain groups of the unemployed include expenditures for long-term unemployed through employment subsidies and a similar program for unemployed graduates. The latter scheme was badly accepted by employers and abolished in 1991. Under the program for long-term unemployed, 11,600 persons' employment was subsidized in 1992 (out of 92,000 long-term unemployed in this year), but its expenditure share amounted to 2.5 percent only. Finally, in 1987 an early retirement scheme was introduced and renewed in 1991.

2.3 Poland

It is safe to say that Poland established one of the most radical reform packages. While the "big bang" started with the fall of the communist regime in the summer of 1989, this reform was preceded by various attempts in the eighties to transform the Polish economy. The pre-reform crisis of 1979–81, which was mainly a balance of payment crisis, as well as the renewed crisis in 1988–89, led to the rise and survival of Solidarity. Previously, the communist-led government undertook two stages of partial reform, in 1981–82 and in 1987–88, intended to decentralize economic decisionmaking.⁶¹ Despite some modest success of these reforms such as in the area of production and investment planning and wage setting, they failed to strengthen the Polish economy. For example, attempts were made to decentralize the wage-setting process by permitting enterprises to determine wages more freely. However, workers pushed for huge wage increases and the managers, sometimes elected by strong workers councils, had few incentives to oppose pressures for wage increases. In addition, the large and influential state enterprises could find cheap financing or subsidies to fund wage increases. Unsurprisingly, the Polish labor

⁶⁰Sources: Lado et al. (1991), p. 14–15, Commission of the European Communities, Employment Observatory for Central and Eastern Europe, Nr. 4, pp. 27 and 29.

⁶¹See Blanchard (1994) for a more recent overview, Lipton and Sachs (1990) for a comprehensive assessment, and Myant (1992) for a more narrative overview.

market was in excess demand and wage increases sometimes accelerated at rates such as 21 percent, 84 percent, and 299 percent in the years 1987, 1988, and 1989.

2.3.1 Macroeconomic Performance

The legacy of the 1980s was that Poland's economic situation at the end of the 1980s can be characterized as disastrous. Net material product – which is a measure of value-added in the material or productive sphere – in 1988 fell short of the level in 1978. Real per capita consumption increased only slightly during this period according to official data which neglect, of course, the lack of availability of goods at administered prices and the effect of relying ever more on the black market. Inflation reached unprecedented figures such as the 636 spurt in consumer prices between December 1988 and December 1989.⁶² Taken together, the Polish economy was trapped into a chaotic wage-subsidy-price spiral.

On 12 September 1989 Poland's first Solidarity-dominated government took office under the prime ministership of T. Mazowiecki with L. Balcerowicz as the deputy prime minister for economy and the main architect of economic policy.⁶³ The so-called Balcerowicz Plan aimed for radical reforms to end the incipient hyperinflation and to create a market economy based on private ownership, free markets, and integration into world markets.⁶⁴ The main elements of the reform package were (i) macroeconomic stabilization by reducing subsidies, restraining budget spending, and tightening monetary policy, (ii) liberalization, such as the across-the-board removal of price controls, the rapid opening of international trade, the convertibility of the Zloty, and the establishment of a legal environment to support decentralized actions of private property owners (i.e. commercial code, company law, system of judicial enforcement of contracts), (iii) privatization, (iv) the construction of a social safety net, (iv) mobilization of international financial assistance to support the transformation. In what follows we shall concentrate on issues concerning labor market developments.

The stabilization and liberalization program was introduced on January 1, 1990 and soon became known as the "big bang". The average price level jumped about 80 percent in the first two weeks in January. But after a 16 percent increase in February 1990, price inflation continued at a rate between zero and four percent per month during 1990 and 1991. Converted into annual rates, inflation came down from nearly 600 percent in 1990 and 70 percent in 1991 to about 40 percent in 1992-93 and is expected to continue to fall (see table 4).

Comparing December 1989 and January 1990 real wages decreased by around 40 percent. For 1990 as a whole the decline amounted to some 30 percent, while in the period 1991 to 1993 Polish workers experienced slight decreases, if any. As has been emphasized by, among others, Sachs (1993) these real wage cuts do not

⁶²Source: Lipton and Sachs (1990), p. 105, footnote 6 of table 3.

⁶³A detailed view is contained in Sachs (1993).

⁶⁴See Sachs (1993), pp. 44, for the following description.

necessarily correspond with an equal fall in living standards. Due to the shortages of goods since back in November 1989, living standards on the eve of reform were lower than suggested by the data. For example, Berg and Sachs (1992) found that consumption fell in 1990 compared with 1989 by around 4 percent, although this figure still does not take into account the improvement in the variety and quality of products.

2.3.2 Wage Determination

In Poland two large confederations dominate the union scene, Solidarity and the ex-communist OPZZ. Membership of the two is well above 40 percent of total employment with the OPZZ maintaining its membership at roughly twice that of Solidarity.⁶⁵ The reforms of 1989-90 brought about a transfer of power to workers' councils in the firms. The workers council can fire the manager and they have to be consulted in case of mass lay-offs of workers.⁶⁶ More specifically, a workers' council is composed of fifteen workers who are elected by secret ballot for two-year terms. The councils are charged with the formation of the firm's annual plans including investment decisions and the decisions on merger and enterprise dissolution.⁶⁷ On the other side, in 1989 the Confederation of Polish employers was created which made up of about 90 percent of state employers and about 60 percent of private employers.⁶⁸ This confederation plays an active role not only in economic matters but also in the consultative process for the adaption of new legislation.

A first step towards free collective bargaining was taken in 1984 with a limited extension of wage bargaining at the enterprise level. The post-communist governments have tried to withdraw from wage negotiations completely. Despite the hierarchical structure of the unions there are no industry-wide or country-wide wage settlements. Wage bargaining is decentralized to the enterprise level where the aforementioned two enterprise-specific unions operate.⁶⁹ The 1982 law on collective disputes and strikes was replaced by laws enacted in 1991. These new laws consider direct negotiations and mediation as pre-conditions to the right to strike.

Wage policy is mainly concerned with a wage indexation scheme. The indexation coefficient determines the ceiling on wage increases which are not subject to an excess wage tax named "popiwek", which was effective in 1990 and 1991. Initially, the popiwek was applied to both state and private-sector firms but completely removed from state-owned firms to private enterprises. The popiwek taxed at penalty rates any wage awards above an indexed norm. The norm was spe-

⁶⁵Sources: Freeman (1994), Burda (1993).

⁶⁶See Coricelli, Hagemeyer and Rybinski (1993).

⁶⁷Lipton and Sachs (1990), p. 304.

⁶⁸Simpson (1991), p. 13.

⁶⁹See Gomulka (1993), p. 203.

cific to each enterprise and was adjusted monthly by a factor which is one plus expected inflation times an indexation coefficient. In 1990, the indexation coefficient amounted to 0.3 for January, 0.2 for February to April, 1.0 in June and 0.6 for all other months.⁷⁰ The penalty tax was based on cumulative excess of actual wage bills over the norm because any unused potential for wage increases could be carried forward and offset against later excess wage increases. The penalty tax rates ranged from 100 to 500 percent depending on the percentage of excess wage payments where the latter figure applied for payments exceeding the norm by more than five percent.⁷¹ In 1991, the popiwek system was amended in several important respects such as choosing the average wage rate rather than the wage bill being subject to ceilings, exempting wage increases based on enterprise-level profitability proxies, and adjusting other parameters (the level of the norm was increased, for example, in order to provide a tax relief for firms paying excess wages).

Despite these changes and the character of the popiwek as a conceptually simple tool, this type of an incomes policy was not very successful. The popiwek did not prevent firms from paying wages above the norm as shown by the 1991 figures. According to Rosati (1993, p.351) the increase in total wages above the limits can be estimated at 4 to 5 percent. Moreover, governmental authorities were permanently under pressure to allow for reliefs or exemptions.

Taken together the Polish economy experienced nominal wage inflation of roughly 300 and 400 percent in 1989 and 1990, respectively. This wage growth was reduced considerably to about 70 percent in 1991 and 40 percent for the years 1992/93.⁷² As has been pointed out before, this nominal wage inflation corresponds with decreasing or low real wage growth (see table 5). Moreover, there is a minimum wage. Its percentage of average net wage increased from roughly 12 to 40 percent during the period 1989 to 1993.⁷³

When real unit labor costs are considered, three periods can be distinguished.⁷⁴ First, there was an initial sharp fall at the outset of stabilization in 1989 with a decline of about 80 percent. Second, a period of fast increase which continued until the end of 1991, setting real unit labor costs above the 1989 peak, and at more than 50 percent above their pre-reform level. Finally, this increase has been stable since 1992/93. With respect to differentials between state and private sector wages, according to official statistics wages in the private sector are on average lower than in the state sector. This, however, holds in trade and industry, while in construction and services other than trade, private sector wages exceed

⁷⁰For a description of the negotiations on the indexation coefficient between the government, Solidarity and OPZZ, see Sachs (1993), p. 37.

⁷¹Source: OECD (1992), p. 44-47.

⁷²Source: Commission of the European Communities, Employment Observatory Central and Eastern Europe No. 5, December 1993, p. 38.

⁷³Ibidem.

⁷⁴Source: Coricelli et al. (1993).

those in the state sector. For example, in 1992 the average monthly wages in state owned enterprises in industry and construction amounted to 3.147 and 2.910 mill. Zlotys, respectively. The corresponding figures for private firms are 2.625 and 3.168 mill. Zlotys.

2.3.3 Employment and Unemployment

During the period 1989 to 1993 total employment declined from about 17.1 to 14.8 mill. persons, i.e., by 13 percent. While the number of self-employed remained, by and large, rather stable at about 4.4 mill. persons (with a slight peak in 1992), this decrease was brought about by employees mainly in the manufacturing sector (about 1 mill. people). Poland experienced a decline in employment in 1992 and 1993 although output grew at rates of 1 and 4 percent, respectively. Note that employment levels have fallen much less than output, especially during 1990–1991. This can partly be explained by the significant decline in hours worked brought about by measures such as a reduction of the number of shifts, eliminating overtime work, and shortening weekly worked hours. Between 1990–1991 total annual hours per worker declined from 1771 to 1716 (but increased in 1992 to a level of 1758).⁷⁵ The aforementioned output recovery of the Polish industry is, however, entirely attributable to the rapid growth of the private sector. When industrial production is broken down by ownership the 4 percent increase in total industrial production in 1992 (compared with 1991) is the result of a nearly 5 percent reduction in state-owned enterprises and a more than 30 percent increase in the private sector. This does not necessarily mean that the asymmetric behavior of state and private firms can be attributed to ownership. It may (also) reflect a different sectoral distribution of the two types of firms. But as has been shown by Coricelli et al. (1993) controlling for sectoral factors still reveals the asymmetric performance mentioned before.

Taken together the evolution of output and employment can be characterized in terms of a declining state sector and expanding private activities. Moreover, the growth of the private sector was predominantly fed by a new private sector rather than with privatized state firms.⁷⁶

Given only a slightly increasing civilian labor force from 17.1 to 17.3 million persons between 1990 and 1992,⁷⁷ the bulk of the growth in unemployment can be associated with the downturn of employment. Unemployment generated in the first three years of transition (1990–1992) can be accounted for by a 2 million drop in total employment and 0.5 million new entrants, according to Coricelli et al. (1993). By the end of 1993, Poland suffered from 2.9 million unemployed persons

⁷⁵Source for this para: Coricelli et al. (1993).

⁷⁶See Pinto et al. (1993) for a more detailed analysis of private vs. state owned firms.

⁷⁷Source: European Commission, Employment Observatory, Central and Eastern Europe, No. 5, December 1993, p. 33.

or an unemployment rate of nearly 16 percent.⁷⁸ Male and female unemployment rates differ slightly, namely 13 and 15 percent, respectively, in the first half of 1993. In contrast, the youth unemployment rate was as high as 30 percent in that time period, but female youth suffered from a roughly five percentage points higher unemployment rate. Even more alarming is the fact that at least one third of total unemployment must be attributed to long-term unemployment. This raises the question about active and passive labor market policies.

2.3.4 Labor Market Policies

To begin with the institutional background, the major framework for market policies is provided by the "Law on Employment and Unemployment" of December 1989. The latter law had been changed so many times during 1990 and 1991 that a replacement was in order.⁷⁹ Other supplementary legal acts have been issued to establish the legal background for specific labor market policies. The Minister of Labor and Social Policy shares responsibility for the implementation of these policies. A subsidiary body, the Employment Board, was legally established to advise the government and approve several measures. The board consists of 24 representatives divided equally among employees, employers, state administration, and country representatives. Moreover, this board is replicated at the regional and local levels and there consists of 16 and 12 people, respectively. The administration of labor market policies is the task of the National Labor Office which is subordinated to the Ministry of Labor and Social Policy and began its activities at the beginning of 1993. More specifically, the task of the National Labor Office is to coordinate all measures undertaken by the Public Employment Services which is an important body with some 400 officers and 11,000 staff members in 1993.⁸⁰ Local labor offices deal mainly and directly with unemployment benefits, organize vocational training and retraining, may subsidize the creation of additional openings in existing firms and pay lump-sum start-up loans for selected unemployed. Finally, labor market policies are financed by the "Labor Fund" managed by the Minister of Labor and Social Policy. Its revenues come from compulsory contributions paid by the employers (in 1993, 3 percent of the employee's gross wage) and state budget transfers. Total revenues of the fund increased from 4,600 to 24,000 billion Zlotys between 1990 and 1992, i.e., from 0.6 to 2 percent of GDP.

Similar to other CEE countries, the labor fund until 1993 was used primarily for paying unemployment benefits, roughly 86 percent of the fund was spent of this issue. The initial unemployment benefit system introduced at the end of 1989 was

⁷⁸Source: OECD Economic Outlook Nr. 55 (June 1994), p. 118. Note, however, that data on unemployment rates are not strictly comparable over time due to different sources, namely census data prior to 1993 and labor force survey data since 1993. The same caveat holds for labor force data, of course.

⁷⁹See Gora (1991, 1994) for details. The following description draws on this work.

⁸⁰Source: Gora (1994), table 1, p. 214.

open-ended, earnings-related and not contingent on previous work experience.⁸¹ Three major changes have been implemented since then. Due to the "Employment Act" of July 1990 benefit eligibility was restricted to persons who had worked at least 180 days in the last 12 months. This provision mainly excluded school leavers to whom unemployment benefits are not paid during the first 3 months after registration. This rule also holds for those persons who voluntarily quit their job. Secondly, according to the "Act on the Change of the Employment Act" signed by President Walesa in November 1991, the duration of benefit eligibility ends for those individuals with an uninterrupted spell of unemployment exceeding 12 months. Interestingly enough, at the same time the Polish parliament, the Sejm, passed a law for all those affected by this provision, extending benefit payments for one year until December 1992. Only since this date the limit of 12 months holds. There are, however, still some exceptions such as a limit of 18 months in districts where unemployment rates exceed a given threshold or for unemployed men (women) whose tenure reached 30 (35) years and an open-ended rule for those men and women with 35 and 30 years tenure, respectively. Eligibility is lost if the unemployed person refuses a "suitable" job offer or participation at a training course. Thirdly, while the replacement ratio in former times was related to the last previous wage and declining over time, the current unemployment benefit system is based on a 36 percent flat rate of the average wage of the previous quarter. This percentage equals 75 percent of the last wage for those unemployed individuals who have been dismissed in group layoffs and have reached a certain age and tenure. To a certain amount moonlighting is permitted in some cases.

The share of unemployed persons receiving benefits among all unemployed has substantially decreased over time, i.e., from about 70 to 40 percent between 1990 and 1993,⁸² although the number of recipients has tripled. The decline of the coverage stems from the aforementioned change of the regulations. According to estimates by the Ministry of Labor and Social Policy, some 400,000 unemployment benefit claimants have lost their eligibility. Put differently, had the regulations remained unchanged the coverage would be about two thirds of all unemployed rather than those 40 percent mentioned before.

Turning to active labor market policies (ALMP), their percentage share of expenditures from the Labor Fund declined substantially from 32 percent to 5 percent between 1990 and 1992, but are projected to increase up to roughly 10 percent in 1993.⁸³ In 1992/93 about 200,000 persons (out of 2.6 million unemployed) participated in various ALMP which, among others, include the following measures:

- (i) Intervention works means that private or state-owned firms can ask for subsidized additional work places. In order to qualify for this scheme the firm size must exceed 10 employees and must not have dismissed more than

⁸¹See also Lehmann (1993) for the following details.

⁸²Source: Gora (1994), Table 7, p.216.

⁸³See Burda (1993), Gora (1994), and Lehmann (1993) for the following description.

10 percent of its workforce during the last six months. Employment according to this measure is limited to six months. The subsidy paid to the firm equals the unemployment benefit. Intervention works are particularly designed for special groups of the unemployed such as school leavers and long-term unemployed. In 1992/93 roughly 100,000 persons were included in intervention works.

- (ii) Public works is distinct from intervention works by its organizational bodies and resources. Under the public works scheme local authorities employ unemployed individuals with uninterrupted spells of more than 6 months on public projects. These projects are concerned with an improvement of public infrastructures such as environmental protection, transport, communication, and social services. The duration of these jobs is limited to 6 months. Additional funds must be used for public works while the Labor Fund subsidizes up to 75 percent of the national average wage. Other costs have to be borne by the local organizer of public works. In 1992/93 roughly 45,000 people are employed under this scheme.
- (iii) Training and retraining are of minor importance given their small 1 percent share of ALMP expenditures in 1992/93 with the number of trainees in the order of 70,000 in 1992. Labor offices pay the costs of training courses for those unemployed selected for training. For unemployment benefit claimants this support is replaced by a training allowance which amounts to 115 percent of regular unemployment benefits. However, if the course is not completed for reasons the trainee has to answer for, training costs have to be reimbursed and unemployment benefits are cancelled. In addition to these training courses for unemployed persons, there is some training for employed adults (not limited in time as for the unemployed) and financial support of apprenticeship training for youths. The Labor Fund covers costs of apprenticeships equal to 12 percent of the average wage and of the supervisors.
- (iv) Start-up loans go in two directions. Unemployed persons who wish to become self-employed may receive a loan with an interest rate varying between 60 and 80 percent of the market rate. The loan must be fully repaid after 4 years but 50 percent may be foregone if the work place continues to exist after two years. Secondly, loans to employers for creating new work places are slightly more expensive and must be repaid within 2 years. Entitlement requires that the employer does not dismiss workers for one year. In 1992 (1993), roughly 4,900 (1,800) loans were granted which means a one percent share of all ALMP expenditures.

3 The Dynamics of Employment and Unemployment

As is well known in labor economics unemployment rates as displayed in the previous section are of limited importance. They represent snap-shots of a given time period but do not allow for insights into the nature of the development of employment and unemployment. For example, the usual picture for labor markets in transition is that of a steadily eroding state sector shedding labor which moves into unemployment and after then into employment in an emerging and growing private sector. As a result unemployment should increase during the transition period and a high turnover in the unemployment pool should take place. But this is not what we generally observe. Unemployment rates vary substantially between, say, Poland and the Czech Republic, and the unemployment pool in the CEE labor markets can hardly be characterized as highly dynamic. In order to understand what was and is going on, an analysis of gross labor market flows is called for.

Three types of flows deserve greater attention:

- i. Flows from employment and unemployment into "out of the labor force",
- ii. flows into and out of the unemployment pool, and
- iii. intraemployment flows.

3.1 Flows out of the Labor Force

To begin with flows from (un-) employment to non-participation, a back-of-the-envelope calculation already suggests that they are anything but negligible. If there were no change of the labor force there should be a one-to-one correspondence between the observed decline in employment and the increase in unemployment. More specifically, as a benchmark case the ratio $\Delta U/\Delta E$ (E = employed persons, U = unemployed persons) should equal minus one if the labor force were constant. Rough calculations for the period 1989 - 1992 indicate substantial differences. For the Czech Republic the ratio is lowest (~ -0.5), the Slovak Republic and Hungary wind up with a ratio around -0.6 , where as for Poland we get a figure of about -1.1 .⁸⁴ Table 6 is taken from the same data source but expresses all figures as percentages of the working-age population in 1989 and distinguishes

⁸⁴Calculations are based on data contained in: Commission of the European Communities, Employment Observatory Central and Eastern Europe Nr. 5 (Dec. 1993), Brussels, table 1, p.15 and p. 36.

between males and females. The corresponding table 7 illustrates the resulting decline in labor force participation rates. Taken at face value (with obvious caveats, however), one reason, among others, for the low Czech unemployment rate may be sought in an increasing share of inactive working population. To reiterate immediately, no claim whatsoever is made that the "Czech miracle" consists simply of withdrawals from the labor force. On the other hand, misreportings of employment and unemployment in the order of magnitudes would be necessary to dismiss this aspect as completely irrelevant.

When people, to a non-negligible extent, move from employment to inactivity rather than unemployment, inflow rates should be low *ceteris paribus* compared to OECD countries (which experienced slightly increasing labor force participation rates, from 70.5 to 70.9 for total OECD between 1989 - 1992).⁸⁵ Indeed, inflow rates, i.e., persons entering unemployment divided by labor force, are lower in CEE labor markets. This is evidenced by the following estimates of average monthly inflow rates for 1992:⁸⁶

Czech Republic	:	0.6 percent	[-2.6 percent]
Slovak Republic	:	0.9 percent	[-5.3 percent]
Poland	:	0.8 percent	[-2.0 percent]
West Germany (1993)	:	1.2 percent	[-1.6 percent]

The figures in brackets display employment growth. The recession year 1993 for West Germany is taken as a reference and illustrates that West Germany's inflow rate is higher despite its lower employment decline.

3.2 Flows into and out of the Unemployment Pool

Inflow rates in CEE countries are not only low compared with employment losses but also in relation to the tremendous fall in output. In the short-run this phenomenon can be explained, to some extent, by the lagged response of employment to output changes.⁸⁷ Employers at early stages react by reducing the number of shifts, and introducing short-time work and/or unpaid leave periods, rather than by implementing layoffs on a large scale.⁸⁸ This is evidenced by the decline in hours worked. For example, in Poland total hours per worker declined by 3.0, 5.0 and 3.1 percent in 1989, 1990 and 1991, respectively, but increased by 2.5 percent in 1992. The corresponding figures for employment growth are -0.6, -6.3, -3.6, -1.9 percent, i.e., in 1992, when output was already increasing (industrial output by

⁸⁵Source: OECD, Economic Outlook No. 55 (June) 1994, p. A21.

⁸⁶Sources: Czech and Slovak Republics: Ham et al. (1994a), table 9; Poland: Coricelli et al. (1993), table 7; West Germany: Institut der deutschen Wirtschaft, Zahlen zur wirtschaftlichen Entwicklung der Bundesrepublik Deutschland 1994, tables 19, 21 and 29.

⁸⁷See the econometric analysis of flows in Burda and Wyplosz (1994).

⁸⁸See Boeri (1993), p. 6.

4 percent), hours also rose but employment was still declining.⁸⁹ In order to get more insight into the determinants of employment developments, we tentatively run the following textbook version of a labor demand equation keeping in mind due caveats concerning the reliability of data:⁹⁰

$$\ln E_t = a_0\lambda + a_1\lambda \ln Y_t + a_2\lambda \ln W^R + (1 - \lambda) \ln E_{t-1}$$

where E refers to employment, W^R to the real wage rate (product wage), and Y denotes output. Of interest is the parameter λ which results from an adjustment process of the type: $\ln E_t - \ln E_{t-1} = \lambda(\ln E_t^* - \ln E_t)$ where E^* is optimal employment given by $\ln E^* = a_0 + a_1 \ln Y + a_2 \ln W^R$. While the details of the estimation are relegated to annex B the following findings emerge. All regression coefficients display the sign theoretically expected and are highly significant. The adjustment coefficient λ amounts to 0.43 (Poland: 0.24), i.e., the mean lag is around 1.3 (Poland: 3.2). This is not too far away from estimates for several OECD countries. On the other hand, both the short-run as well as the long-run elasticity of employment with respect to output (0.09 and 0.21 (Poland: 0.38) , respectively) are very low for CEE countries compared with typical estimates for OECD countries around 0.7 in the long-run. To be sure, a "long-run" elasticity is a very ambitious calculation given the short observation period. Nevertheless the low employment-output elasticity points to a considerable amount of labor hoarding. Finally, the short-run elasticity of employment with respect to the real product wage is estimated in the order of -0.11 and its long run value is then -0.26 (Poland: -0.46). These responses seem also to fall short of standard estimates for OECD countries around -0.7, but there is a broad range of estimated ranges for the response of employment of real wage changes.

To some extent lagged employment adjustments mean labor hoarding in the sense that people working at the firm are not really needed to produce actual output. Labor hoarding is quite substantial in CEE countries. In terms of working-time, Boeri and Keese (1992, p. 135), after having reviewed various studies, conclude that between 15 and 30 percent of all working-time in CEE countries was effectively hoarded labor; this figure is close to the numbers given by Ham et al. (1994a, p. 31). As a consequence of a decline in employment less than production, productivity per worker decreases. This is in line with the observations displayed in tables 1 - 4 with Poland in 1992 as an exception (due to the increasing output there in that year).

Relatively low inflow rates are one part of unemployment dynamics in CEE labor markets, rather diverging outflow rates are the other. While inflow rates are a proxy for the risk of an average member of the labor force to become unemployed, outflow rates indicate the chance of an average unemployed individual to

⁸⁹Source: Coricelli et al. (1993), tables 1 (Part 1), 1 and 4 (Part 2).

⁹⁰See Boeri and Keese (1992) for a similar approach.

leave the unemployment pool. Hence, a standard measure of outflow rates is the ratio of persons leaving the unemployment status to the number of unemployed people. Under due caveats average monthly outflow rates for 1992 and 1993 are as follows:^{91,92}

	1992	1993
Czech Republic	25.1	20.3
Slovak Republic	10.2	7.6
Hungary	6.5 ^{a)}	7.9
Poland	4.3	4.8

West Germany	16.9	14.9
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a) Unemployment benefit recipients only.

Even taking into account that considerable parts of the Czech outflow rate is due to more restrictive regulations concerning the entitlement to unemployment benefits - roughly 20 to 30 percent⁹³ -, there are substantial differences between CEE labor markets and OECD countries. This can be shown by the figures for West Germany. First, with the exception of the Czech Republic, outflow rates in CEE economies are rather low relative to West Germany. In view of the low inflow rates displayed above, this points to a fairly stagnant unemployment pool. Measured by the turnover rate in the unemployment pool, i.e., the sum of inflows and outflows (persons) normalized by the number of unemployed individuals, the Czech Republic exhibits a figure around 45 percent (all numbers for 1992).⁹⁴ Hence, the dynamics of the Czech unemployment, at first glance, outperform those of West Germany (some 35 percent), and only if flows from unemployment to "out of the labor force" are subtracted, both figures come closer together. As a second point, the low Czech unemployment rate is the result of both, a substantially lower inflow rate, supported by large inflows into inactiveness, and a tremendously higher outflow rate. Hypotheses on why these differences among CEE labor markets exist are offered in section 4. Suffice it to point out here that the picture is not as simple as the state sectors dismissing people who are then partly absorbed by the private sector. Both sectors have hirings and firings and, moreover, job-to-job

⁹¹See Boeri (1994 a,b) for a more detailed analysis.

⁹²Sources: Poland, Czech and Slovak Republic as well as Hungary (1993): OECD-CCET Labour Market database; Hungary (1992): own calculations on the basis of Boeri (1993), table 2; West Germany: Institut der deutschen Wirtschaft, Zahlen zur wirtschaftlichen Entwicklung der Bundesrepublik Deutschland 1994, tables 27 and 29.

⁹³Sources: Ham et al. (1994a), table 10; Boeri (1993), table 2. In Poland roughly one half of all outflows are exits to job, see Coricelli et al. (1993), table 8.

⁹⁴Sources: same as footnote before last.

movements are important.⁹⁵ Household surveys in the Czech and Slovak Republic and in Hungary suggest that most workers have moved directly into the private sector without experiencing any intervening spell of unemployment. Moreover, while the state sector still plays a dominant role in hiring people from the unemployment ranks, the private sector is often a net contributor to the unemployment pool.⁹⁶

The upshot of these considerations can be highlighted by a decomposition of the unemployment rate into its dynamic parts. More specifically, let U_t denote the number of unemployed persons at the end of the time period t , I_t and O_t the cumulated inflows and outflows, respectively, during time period t , L_t and N_t the labor force and employed persons, respectively, at the end of time period t . We have the following identity between flows and changes in unemployment:

$$U_t - U_{t-1} = I_t - O_t, \quad (1)$$

which, after some algebraic manipulation, can be written as:

$$UR_t - UR_{t-1} / \tilde{L}_t = IR_t \cdot \tilde{N}_t - OR_t \cdot UR_t \quad (2)$$

where $UR_t = U_t/L_t$, $\tilde{L}_t = L_t/L_{t-1}$, $\tilde{N}_t = N_t/L_t$, $IR_t = I_t/N_t$, and $OR_t = O_t/U_t$. Solving for the unemployment rate UR gives the following expression which relates the unemployment rate UR to the inflow rate IR , the outflow rate OR , and labor force changes $\tilde{L}$ (note that $\tilde{N} = 1 - UR$):

$$UR_t = \frac{IR_t + \frac{1}{\tilde{L}} \cdot UR_{t-1}}{1 + IR_t + OR_t} \quad (3)$$

As a special case, if unemployment and the labor force are both stationary (i.e., $UR_t = UR_{t-1}$ and $\tilde{L} = 1$) we get:

$$UR_t = \frac{1}{1 + \frac{OR_t}{IR_t}}, \quad (4)$$

that is the unemployment rate can be expressed as the inverse of one plus the ratio of the outflow rate to the inflow rate.⁹⁷ Given the actual change of the labor force in CEE countries we shall employ the non-stationary version, however. The above expressions again show that to understand unemployment we need to identify the development of inflows and outflows.

Formula (3) can be used to reveal the contribution of each flow rate to the rise in unemployment. Figures (1) to (3) show, for each country, three series for unemployment. The series for actual unemployment is calculated by using equation

⁹⁵For example, Blanchard et al. (1994), p. 62, report that in Poland in 1992, while the flow out of state employment was 20 percent of total employment, the inflow was a surprisingly high 10 percent. In Hungary, the flow out for 1992 was 22 percent, the flow in 10 percent.

⁹⁶See Boeri (1994 b) for sources and some evidence.

⁹⁷See Pissarides (1986).

(3) and actual series for IR , OR , and $\tilde{L}$.^{98,99} The constant-flow unemployment series are derived by holding either the inflow rate or the outflow rate constant at its level at the beginning of the time period under consideration.^{100,101} For example, the constant-inflow unemployment rate series displays the changes in unemployment that can be attributed to changes in the outflow rate.¹⁰²

Figures (1) to (3) show that in all three countries both the inflow rate and the outflow rate contribute to changes in unemployment albeit with different weights in each country changing over time.¹⁰³ In Poland until 1993 it is more the low outflow rate rather than an increase in the inflow rate that matters, but this picture is clearly reversed since 1993. A similar pattern can be observed for the Slovak Republic, although here a decrease in the outflow rate in 1993 has aggravated the unemployment additionally. On the other hand, in the Czech Republic virtually no such a reversal can be observed. In this country the decrease in the outflow rate slightly dominates the increase in the inflow rate even in 1993.

3.3 Long-Term Unemployment and Mismatch

In the previous section it has been pointed out that job-to-job movements without intervening spells of unemployment share greater importance.

The reason why employers prefer to hire employed persons rather than unemployed becomes clear by focussing on long-term unemployment. More precisely, the following figures document the share of individuals with an uninterrupted spell of unemployment of more than one year among all unemployed for 1993:¹⁰⁴

⁹⁸Sources: OECD-CCET Labour Market database and OECD-Short-term economic indicators, Transition Economies, 1994. Monthly figures for employment are obtained by interpolation of quarterly employment data. Computations for Poland also use W-Models database, University of Lodz.

⁹⁹The unemployment rates in the figures are somewhat biased upwards due to exclusions in the quarterly employment data.

¹⁰⁰The rates are allowed to show seasonal deviations.

¹⁰¹The exception is the outflow rate for Poland which has a positive trend. Hence, the constant outflow rate refers to its level at the end of the time period under consideration.

¹⁰²See Pissarides (1986) for a similar procedure.

¹⁰³Lack of suitable data excludes Hungary from this exercise.

¹⁰⁴Figures for CEE countries refer to second quarter 1993, sources: Commission of the European Communities Employment Observatory Central and Eastern Europe 5, Dec. 1993, pp. 7-8; OECD countries: OECD, Employment Outlook 1994, p. 206.

Czech Republic	16 percent
Slovak Republic	54 percent
Hungary	33 percent
Poland	35 percent
West Germany	34 percent
USA	12 percent
Italy (1992)	58 percent

While there are considerable differences in these shares between CEE labor markets, similar differentials can be observed in OECD countries. By and large, the same observation holds for the structure of long-term unemployment such as the higher risk of unskilled labor to experience long spells of unemployment.¹⁰⁵ Moreover, as in Western labor markets, youths seem to face a higher risk of becoming unemployed but have a shorter duration of joblessness compared with the elderly.

As is well known from the analysis of hysteresis phenomena in Western labor markets, a rising share of long-term unemployment, as experienced in CEE countries, is a signal for unemployment to become more persistent.¹⁰⁶ Long-term unemployed persons are less likely to be hired by firms not only due to their "unfavourable" characteristics such as incomplete education and training and physical disabilities, but also when unemployment experience is used as a screening device by employers. Given their (potential) depreciation of human capital and work attitudes during the long spell of unemployment, these individuals face an exit probability which declines with the duration of unemployment. A common method of evaluating these decreasing probabilities is the estimation of hazard functions, i.e., the probability to escape from unemployment dependent, among other variables, on the previous experience with unemployment. In order to control for heterogeneity such estimates should be based on individual panel data. Apart from very preliminary studies such analyses, to the best of our knowledge, are still not available for CEE labor markets.¹⁰⁷ The availability of individual panel data is presently better for East Germany. Estimates of hazard models by Steiner (1994), for example, confirm that exit probabilities decline with duration. Estimations of wage equations for CEE countries discussed in section 4.1.1 suggest that the presence of hysteresis phenomena ("persistence") is not rejected by the data.

As has been mentioned, the notion of unemployment as a screening device, helps to understand why (private) employers prefer hirings from the employment

¹⁰⁵See Boeri and Scarpetta (1994) for a discussion of characteristics of long-term unemployment in CEE labor markets.

¹⁰⁶Franz (1990) gives an overview of the hysteresis phenomenon in labor markets.

¹⁰⁷A tentative study is Ham, Svejnar and Terrell (1994b) which, however, could not yet deal with the heterogeneity issue.

pool, i.e., job-to-job shifts rather than hiring unemployed people gain greater importance. Differences in the shares of long-term unemployment may therefore contribute to an explanation as to why outflow rates in the Czech Republic greatly outperform those in other CEE countries. Just as important is the functioning of the labor market. The matching process between unemployed and vacancies is crucial and differences between country-specific outflow rates may have, in principle, their origins in different kinds and/or degrees of a mismatch. Variants of a mismatch, which are not mutually exclusive, are (i) qualifications mismatch, i.e., labor demand and supply differ with respect to skills, education, work experience and the like, (ii) regional mismatch if regional mobility is low due, for example, to an insufficiently working housing market or socio-cultural ties, (iii) choosiness of employers and unemployed persons, and (iv) labor offices working insufficiently.

A common tool to analyze the extent and changes of a mismatch is to estimate matching functions. Leaving aside details, the matching function has outflows into jobs, i.e., new hirings, as the dependent variable and the number of unemployed persons and vacancies, as explanatory variables. Several shift parameters are introduced to identify possible sources of mismatch as indicated above. Unemployment can be distinguished by duration in order to detect, for example, whether long-term unemployment has an effect on the matching process. Studies along these lines for CEE labor markets include, among others, Boeri (1993,1994 a,b), Burda (1993,1994a) and Lehmann (1993). Although they represent highly skillful work with stimulating results, considerable courage is necessary given the quality of vacancy data in CEE countries although the situation may differ between these economies and be better for the Czech and Slovak Republic. Anyway, vacancy data are not that reliable for Western labor markets either. Notwithstanding these caveats, Burda (1993) finds a stable matching function for the Czech Republic with a pattern of estimated time dummies which hints at technical progress (growing efficiency) in the Czech matching function. For the Slovak Republic, however, the existence of a (stable) matching function is more open to questions. By and large, these results are shared by the findings by Boeri (1994 a,b), who reports matching functions for Poland and Hungary, too. Moreover, he confirms views expressed earlier that long-term and short-term unemployed persons are not perfect substitutes but enter the matching function with different weights. While an increase in the number of short-term unemployed stimulates (greatly) outflows to jobs, a larger number of long-term unemployed has little, if any, effects on job finds. On the other hand, Lehmann (1993) in his study for Poland could not establish well behaved matching functions, but succeeded in estimating well specified hiring functions. For male hirings he found evidence that the benefit regime switch at the beginning of 1992 and the introduction of training measures in the latter part of 1992 (see section 2.3.4) have raised male hirings.

Whatever the merits of these studies, they clearly show the existence of some mismatch and they indicate differences between CEE countries in that the match-

ing process in the Czech Republic might be more efficient than in other CEE labor markets. Given the short observation period (one or two years), it is impossible to identify sources for an increasing mismatch such as a higher dispersion of unemployment and vacancies with respect to regions and/or skills. Calculations by Boeri (1994a), p. 10 of an index of regional mismatch shows for most CEE countries that this measure for 1993 is at least twice as much as in 1991.¹⁰⁸ While an increase in regional imperfections can also be observed for some OECD labor markets during the 1980's¹⁰⁹, such a jump as in the CEE countries is extraordinary (but perhaps subject to more severe measurement problems).

It is difficult to obtain clues on a possible (increases of) employers' choosiness other than the long-term unemployment issue. Choosiness of the unemployed people can be induced by too generous an unemployment benefit system. Moreover, efficiency differences among labor offices and various kinds of active labor market policies may also help to explain why all CEE countries but the Czech Republic experience low outflow rates. A discussion of these aspects is relegated to section 4.2. In short, active labor market policies and higher efficiency of Czech labor offices are indeed one prime reason behind lower unemployment in the Czech Republic.

4 Differences and Common Aspects of Labor Markets in CEE and OECD Countries

What makes labor markets of the CEE countries under consideration different from those in market economies? What are the differences between the CEE countries? This section is devoted to an analysis of these two questions. We shall tackle with them in turn and focus on the following aspects:

- (a) Wage formation including institutional settings, income policies, and wage structures,
- (b) active and passive labor market policies,
- (c) structure of employment and output.

Given remarkable differences between labor markets in the OECD – for example, between Europe and the U.S.¹¹⁰ – we shall concentrate on European labor

¹⁰⁸The index is computed as $I = 0.5 \sum_r s_r | (U_r - V_r) - (U - V) |$ where s_r denotes the labor force share in region r , U_r and V_r are, respectively, regional unemployment and vacancy rates, and U and V are the respective countries' average rates. A more detailed discussion of this measure can be found in Layard, Nickell and Jackman (1991), chapter 6. Applications to the econometrics of structural unemployment are contained in Franz (1992). A critique against the measure is put forward by Entorf (1994).

¹⁰⁹See the collection of country papers in Padoa Schioppa (1991).

¹¹⁰See Bean (1994).

markets.

4.1 Wage Formation: Institutions and Outcomes

4.1.1 CEE versus OECD Countries

There are mainly five aspects which are, by and large, specific to CEE countries.

- (i) In most if not all CEE countries government plays a more active role in the process of wage formation than in most OECD countries such as Germany, U.K. or USA. Tripartite assemblies have been created in the CSFR in 1991 ("Council for Economic and Social Agreement", CSEA) and in Hungary in 1990 ("Council for the Reconciliation of Interests", CRI). While in Poland such a formal tripartite body does not exist, there are strong connections between the government and the unions, notably Solidarity. One reason which has kept Poland from using formal tripartite bodies may be an animus between the two unions, Solidarity and OPZZ. But both unions lobby in the Sejm in defense of their interests.¹¹¹

These bodies are concerned with at least achieving congruence between the macro-economic goals of State policy and those of major collective organisations. In practice they are involved in setting wage guidelines, minimum wages, and active labor market policies.

This does not mean, however, that wages are generally determined at the national level. Probably the most centralized wage bargaining takes place in the Czech and Slovak Republics while in Poland wage bargaining is decentralized to the enterprise level.

- (ii) Although the extent of codetermination differs among CEE and OECD countries, this issue, in some cases, may also serve as a distinction. While in some OECD countries workers' councils exist (such as in Austria and Germany), they are totally absent in others like the U.S. But in virtually no case do workers' councils have so strong an influence as, for example, in Poland. Councils there can fire the manager, have to be consulted in case of mass lay-offs of workers, and are concerned with the formation of the firm's annual plans including decisions on investments. In Hungary the council must be consulted by the employer for any decision affecting a substantial group of employees (reorganization plans, privatization, vacation plans, etc.). While a system of codetermination exists in the Czech and Slovak Republic, workers' councils are absent.

¹¹¹See Freeman (1994), p. 17.

- (iii) Incomes policies are absent in most if not all OECD countries but play a major role in CEE countries. The main tool is an excess wage tax. Guidelines for wages are set at the national level by more or less formal tripartite bodies. Penalty taxes were levied on wage increases above the norm. For example, in the former CSFR a tax of 750 percent of the amount of the wage bill increase above the norm applied if growth of the wage bill was more than 5 percent. A similar tool was the excess tax named "popiwiek" in Poland which was effective in 1990 and 1991 and ranged up to 500 percent. The procedure in Hungary was somewhat different. Firms exceeding a certain amount of wage growth had to add the sum above that ceiling or the whole increment to their pre-tax profit. In 1993 this regulation was abolished.

These excess wage taxes have been anything but a perfect tool. This is evidenced not only by the fact that they have been abolished in most CEE countries (the Czech Republic is the exception) but also by quite a few exemptions and changes in the rules of applying the tax. These exemptions or changes concern issues such as whether it should be applied to private enterprises, too, whether the average wage rate or the wage bill being subject to the ceiling, or whether firm-specific profits should be taken into account. As a result, the excess wage tax in many cases did not prevent firms from paying wages above the norm because governments have been permanently under pressure to allow for reliefs or exemptions.

- (iv) As has been displayed in section 2 and tables 1 - 4 there is a sharp decline in real wages in CEE countries albeit to a different extent. Whilst nominal wages have risen they have been often outstripped by increases in inflation.¹¹² This leads us to the question of real wage flexibility in CEE labor markets compared with those in OECD economies.

Wage flexibility in this context simply means the degree of responsiveness of wages to high and increasing unemployment. In order to receive some clues on this issue we estimate the following wage equation as a very stripped-down version of a non-augmented Phillips curve.¹¹³

$$\Delta \ln W_t = a_0 + a_1 \Delta \ln PC_{t-1} + a_2 U_t + a_3 \Delta U_t \quad (5)$$

¹¹²Recall, however, the discussion of measurement problems in section 2 and that in many cases, especially in Hungary, secondary incomes form an important component of households standard of living.

¹¹³See Franz and Gordon (1993) for a more detailed analysis of wage (and price) equations.

where

W = nominal wage
 PC = index of consumer prices
 U = unemployment rate

and where Δ indicates first differences; hence, $\Delta \ln PC$ is the inflation rate of consumer prices. This equation is estimated in a pooled cross section - time series version for the period 1990 - 1993 for CEE countries.

Again it goes without saying that, for the CEEs, this exercise can only serve as a crude guess-estimate in light of all due caveats about the reliability of wage, price, and unemployment measures. While the details of the estimations are relegated to annex A, the following findings emerge. The coefficient associated with the inflation rate is 0.5 and, hence, well below unity. This reflects the experience of real wage cuts in CEE countries. Secondly, both coefficients of the unemployment rate and its first difference are negative and significant. As is well known the significance of ΔU means that persistence of unemployment cannot be rejected.¹¹⁴ Compared with estimates for OECD countries as displayed in Elmeskov and MacFarlan (1993, table 1) the coefficient associated with the unemployment rate of -0.27 is within the range of those for OECD countries while in OECD countries significant persistence could be found only for few countries (such as France, Germany and the US).¹¹⁵

- (v) A fifth distinction is constituted by the wage structure. Although the structure of wages with respect to qualifications and/or sectors differs substantially between OECD countries - it is, for example, more compressed in Germany compared with the U.S. -, CEE countries are blamed with having a much more egalitarian wage structure than OECD economies. This structure is said to be the legacy of communist regimes which pursued a deliberate policy of wage equalization. But the narrow wage structure may have met and may still meet the preferences of the people in former communist countries. As has been emphasized by Blanchflower and Freeman (1994), based on International Social Science Programme (ISSP) surveys, persons in Poland and Hungary favor markedly smaller differentials than individuals in the West.

¹¹⁴See Franz and Gordon (1993) for details. This follows from $\Delta \ln W_t = a_0 + a_1 \ln \Delta PC + \gamma(U_t - U_t^*)$ where U^* denotes the equilibrium unemployment rate with $U_t^* = b_0 + b_1 U_{t-1}$ in the most simple version. Rearranging terms gives:

$\Delta \ln W_t = a_0 + a_1 \ln \Delta PC + a_2 U_t + a_3 \Delta U_t$ where $a_2 = -\gamma b_0(1 - b_1)$ and $a_3 = -\gamma b_0 b_1$. For $b_1 = 1$ follows that a_2 equals zero (hysteresis), $b_1 = 0$ implies $a_3 = 0$ (no hysteresis) and $0 \leq b_1 \leq 1$ denotes persistence.

¹¹⁵Note, however, that Elmeskov and MacFarlan (1993) employ a somewhat different specification of the wage equation.

The empirical evidence of income structures is mixed, however. For the late 1980's the CSFR is reported to have one of the most equal distributions of income in the world: Around 11 (33) percent of household income belonged to the poorest (richest) 20 percent of households, the respective figures for France and U.K. are above 6 (40) percent.¹¹⁶ In contrast to this observation education-related wage differentials in the CSFR as reported by Ham et al. (1994a) are fairly significant. For example, in 1988 the average wage differential between university graduates and secondary vocational or general school graduates was 29 percent. The respective figure for the U.S. for male college graduates relative to high school graduates with five years experience was 27 percent in 1979 (but increased to 66 percent in 1988 as the result of the huge increase in the relative wages of highly educated workers during the 1980's).¹¹⁷ With respect to the sectoral wage structure sizable pre-reform wage differentials also existed. The ratio of the highest to lowest average sectoral wage is reported to amount to roughly 2 for 1987 (Burda (1991), table 9, p. 125) and 1.6 for 1989 (Ham et al. (1994a), p. 25). In general, inter-industry wage differentials in CEE countries are lower compared with OECD countries but the higher share of manual workers in CEE economies may partly account for this.¹¹⁸ Taken together, there may be substantial differences of inequalities between the income and wealth distribution and some (unweighted) wage structures in CEE countries.

Whatever the degree of inequality is, this aspect should not be overstressed. Equilibrium wage structures depend on the structure of relative demand and supply across sectors and qualifications which may vary substantially across countries. Hence, it is not the existence of a given pay structure that matters most, but the flexibility of relative wages in response to structural changes in labor markets.¹¹⁹ Referring first to the Czech and Slovak Republics again there is evidence that wage differentials with respect to sectors and education did in fact increase. The aforementioned 1.6 ratio of sectoral wages jumped so to 2.4 and 2.2 in the Czech and Slovak Republic, respectively, in 1992.¹²⁰ This is remarkable in light of the former constancy of the sectoral wage structure as evidenced by virtually unchanged coefficients of variation throughout the 1980's such as 0.18 in Burda (1991, p. 125) or 0.12 in Freeman (1994, p. 45). Similar movements of the sectoral wage structure can be observed in Poland where the coefficient of variation of sectoral wage changes doubled between 1990 and 1992.¹²¹ How do these

¹¹⁶Source: Begg (1991), table 5, p. 247; see also Yotopoulos and Nugent (1976), table 14.1, p. 240 - 241. Similar figures for Poland can be found in Sachs (1993), table 1.7, p.21.

¹¹⁷Source: Bound and Johnson (1992), figure 1, p. 374.

¹¹⁸See Boeri and Keese (1992), pp. 140 - 144.

¹¹⁹See Flanagan (1992).

¹²⁰Source: Ham et al. (1994a), p. 25.

¹²¹Source: Coricelli et al. (1993), table 1.

developements of the wage structures compare to those in OECD countries which, of course, did not experience such output movements. The coefficient of variation of wages in the manufacturings sector in OECD countries remained fairly stable during the 1980's with Japan as an exception:¹²²

	1980	1990
France	0.185	0.180
Germany (West)	0.185	0.182
Japan	0.270	0.332
U.K.	0.548	0.563
U.S.	0.215	0.209

While the coefficients are not comparable between countries (due to different subsectors of the manufacturing sector), the 1990 values are close to the figures of 1980 despite non-negligible business fluctuations during this period. In short, the substantial change in the sectoral wage structure for CEE countries, if confirmed by more adequate data, is unique to them. The constancy during the eighties is shared by many OECD countries.

Moreover, education-related wage differentials may have increased at least in Czechoslovakia and Hungary. In the CSFR university graduates in 1991 earn 40 percent above the total average as compared to 32 percent in 1988, while vocational school graduates seem to have been the losers. In Hungary, returns to skill, measured by education and occupation, rose between 1986 and 1990 as is shown by Blanchflower and Freeman (1994) by estimating earnings equations.

A specific aspect of the wage structure in CEE labor markets is, of course, the extent and development of differentials between state and private sector wages. Unfortunately, available information is scant given the notorious underreporting of the private sector. Very small firms in particular are likely to escape detection. Moreover, comparisons are plagued by a possible heterogeneity of workers in state and private firms, respectively. Under these caveats the general impression is that private entrepreneurs on average pay less than state owned firms and that this gap has not changed that much during the transition period. For example, in the CSFR during 1991/92 private entrepreneurs paid at least 10 - 20 percent lower wages than state enterprises (and private corporations)¹²³ whereas in Polish industry the ratio of wages of state to private firms was 1.2 in 1992 (as opposed to 0.9 for transport in the same year.)¹²⁴

¹²²Unweighted coefficients of compensation per employee in the manufacturing sector. Inclusion of subsectors differ between countries but not over time. Source: own calculations; OECD International Sectoral Data Base.

¹²³Source: Ham et al. (1994a), p.27.

¹²⁴Source: Coricelli et al. (1993), p. 12.

4.1.2 Differences Among CEE Countries

CEE countries differ in that wage determination takes place at different levels. While in all countries the state plays an active role in tripartite bodies, in Poland wage bargaining is decentralized to the enterprise level. This stands in marked contrast to the Czech and Slovak Republics where not much room is left for lower-level bargaining over wages in excess of the norm nationally agreed upon. Hungary holds an intermediate position in that wages were set at the national and enterprise level because branch level bargainings are virtually absent.

The three CEE countries differ not only with respect to union density but also to the structure of unions. According to Freeman (1994, p. 41) union density around 1991 ranged from 70 percent in the CSFR and 60 percent in Hungary down to 35 percent in Poland. More surprising is the continued viability of the "successor unions" to the old communist unions despite their chequered past. A takeover of the previous official union took in the CSFR when the CSKOS was formed virtually without any competing new union as the successor of the monopolist communist party controlled "Revolutionary Trade Union Movement". In Poland the OPZZ as the successor union (with about 4.5 million members in 1991) competes with the "Solidarnosz" (around 2 million members). In contrast to the dual union structure in Poland, Hungary is an example of a multiple union system in which democratization has brought with it not only free independent unions but also break-aways from the old official confederation. As has been analyzed by Freeman (1994) in some detail, three factors appear to account for the persistence of the successor unions: the resources of incumbency, the weakness of new unions (except Solidarity, of course), and an avoidance by governments of state interference with union activity that would be mindful of communist interventions.

Workers' councils exist in Hungary and Poland. They are absent in the Czech and Slovak Republic. In Poland workers' council are powerful while in Hungary their influence is significant but lower. Codetermination at the enterprise level in the Czech and Slovak Republics exists in that workers are entitled to elect one third of the members of a supervisory board.

While nominal wage inflation differs between CEE countries by orders of magnitude - between 1988/89 and 1993 nominal wage growth in Poland is ten times as much as in the Slovak Republic -, real wage decreases are less subject to variances between these countries: between 1989 and 1993/Q2 cumulated real wage rate changes amount to some -3 and -24 percent, in Poland and the Slovak Republic respectively. The extraordinarily high nominal wage inflation in Poland 1988/89-90 corresponds with the hyperinflation there at that time (see section 2.3.1 and 2.3.2).

4.2 Active and Passive Labor Market Policies

In order to assess quantitatively the importance of labor market policies in CEE countries, table 8 displays expenditures for active and passive labor market policies as a fraction of GDP. With all due caveats especially about GDP measures, two observations share greater importance. First, in due course of a (rapidly) rising unemployment rate, although all countries have devoted more resources to active labor market policies as a fraction of GDP (col. 2), there is a substantial decline of expenditures for active labor market policies per worker, calculated and expressed as a percentage of income per worker (the latter figure being approximated by output per worker) (col. 5). Secondly, total expenditures for labor market policies are driven by payments of unemployment benefits. With the Czech Republic as a notable exception, in the other three countries in 1993 only one fifth to one fourth of total expenditures belong to active measures, a number which, by and large, holds for 1991, too. The Czech Republic in 1993 devotes more than half of total expenditures to active labor market policies similar, for example, to Sweden. However, normalized as in col.(5) the differences between the Czech and Slovak Republic vanish in that to each unemployed person the same fraction of per capita income is devoted in terms of active labor market policies.¹²⁵ It does not come as a surprise that all figures in col.(5) for CEE countries are outperformed by orders of magnitude if Sweden is taken into account.

A breakdown of active labor market expenditures in CEE countries also reveals substantial differences. As table 9 displays, the CSFR and Poland pursued very different strategies as far as training and job creation schemes are concerned. The share of expenditures for training measures among all expenditures for active labor market policies is in Poland ten times as much as in the former CSFR. On the other hand job creation schemes share overwhelming importance in CSFR but not in Poland. Hungary has spread its expenditures more evenly among several categories such as training, job creation schemes, and assistance for new businesses.¹²⁶ Given the low expenditures per worker in Poland, it would be perhaps too hasty to infer from these figures already that training programs to improve matching are unsuccessful. On the other hand, it is astonishing that the high share of expenditures for job creation schemes is associated with low and high unemployment rates, in the Czech and Slovak Republic respectively. One hypothetic explanation may be found in the efficiency of labor offices.¹²⁷ Staffing in Czech labor offices has 30 unemployed per one staff member as opposed to Slovakia (123) and Poland (235).¹²⁸ Taken together, as a speculative guess, active labor

¹²⁵In the first half of 1993, the average number of registered unemployed persons amounted to 145,000 and 312,000, respectively, in the Czech and Slovak Republic. Note also that GDP in Slovakia is lower than in the Czech Republic.

¹²⁶See section 2 for a description of the details of these and other measures for each CEE country.

¹²⁷See Burda (1994c).

¹²⁸Source: Burda (1994c), p. 14. See also: Uldrichova and Karpisek (1994).

market policy of a job creation type combined with efficiently working labor offices may contribute to an explanation of high Czech outflow rates from unemployment.

In the context of passive labor market policies the most relevant question is whether CEE unemployment benefit systems are too "generous" (whatever that means) compared to OECD countries. Moreover, can these systems be blamed for diverging outflow rates from unemployment within CEE labor markets?

As is well known in labor economics, evaluating the generosity of an unemployment benefit system is a very difficult task given all the various institutional regulations and components of such a system.¹²⁹ Unsurmountable difficulties would arise if one attempts to fix "generosity" with one number to be used in an econometric estimate of, say, aggregate outflow rates. A better strategy seems to examine several features of the system and their possible changes over time. More precisely, standard job search theory point to the following characteristics of an unemployment insurance system:

1. Who is entitled?
2. How much is the replacement ratio?
3. How long is the duration of entitlement?

To begin with, coverage rates of unemployment insurance benefits in CEE countries vary substantially (between 41 and 72 percent in Slovakia and Hungary, respectively, in 1992) and were declining especially after 1991 (they fell from around 70 to some 40 percent in the Czech and Slovak Republic between 1991 and 1992).¹³⁰ The aforementioned range of 41 to 72 percent can also be found in OECD countries. For example, in 1993 the coverage amounted to about 75 percent in West Germany (unemployment benefits: 52 percent, unemployment aid: 23 percent). Moreover, high coverage rates in Hungary and Poland in 1992 (72 and 62 percent, respectively) are expected to decline in due course of the restrictions imposed since then.¹³¹ If so, coverage rates in CEE at the end of 1993 are in a range of 40 to 50 percent. Taken together, entitlement rules may have reached OECD standards meanwhile. Unless it is claimed that OECD coverage rates are also going too far, a possible generosity of CEE unemployment benefit systems must be sought in other quarters.

Hence, the next obvious question concerns the ratio between benefits and previous net wages, i.e., the replacement ratio. Here also substantial changes occurred within the last three years. Through the application of minimum and maximum, unemployment benefits have moved towards a compression of the whole range.

¹²⁹ Atkinson and Micklewright (1991) provide a broad overview. Burtless (1987) is a good example for an examination of unemployment benefit systems in Europe and the U.S.

¹³⁰ Source: Scarpetta and Reutersward (1994).

¹³¹ Boeri and Scarpetta (1994), p. 10.

An assessment of the generosity of replacement ratios in comparison with OECD countries has to take into account that inflation in most CEE countries is running at double digits. Unemployment benefits are, however, not indexed so that they decline rapidly in real terms. Therefore, table 10 reports, for CEE countries, two replacement ratios. Ratio A is defined as benefits divided by a reference period prior to the beginning of the unemployment spell. Ratio B divides benefits by "prospective" wages, i.e., the wage rate the unemployed person would receive had he been still employed. Moreover, table 10 distinguishes between three earnings groups of male workers (who have a sufficiently long work history to allow them to receive unemployment benefits up to their maximum duration, but do not have dependent children). Different rules of taxation unemployment benefits are also taken into account in table 10. For example, in the Czech and Slovak Republics benefits are untaxed and net previous earnings are used in calculating unemployment benefits. The opposite holds for Hungary and Poland. Finally, table 10 neglects the possibility that in some CEE countries additional (wage) income besides unemployment benefits can be received without being deducted from benefits. Only if these additional incomes exceed a given threshold a hundred percent marginal tax is imposed.

Without going into the details of table 10, a common feature of the replacement ratios is the redistribution of unemployment benefits towards low-wage groups. To some extent this is achieved by a minimum which is generally close to the minimum wage.¹³² Secondly, while replacement ratios based on previous earnings (ratio A) exceed those of OECD countries in most but not all cases, they fall short of OECD ratios more frequently when prospective wages and, hence, inflation is taken into account (ratio B for CEE countries; note that OECD replacement ratios always are of type A). Thirdly, replacement ratios in CEE countries decline more sharply for the long-term unemployed as opposed to OECD economies. This is due to the shorter duration of entitlement to unemployment benefits and the lower level of social assistance benefits which can be claimed after unemployment benefits expire.

The maximum duration of unemployment benefits has been reduced in CEE countries. For example, Poland started with an open-ended system in December 1989 but has moved to a maximum duration of 12 months in January 1992. The 12 months entitlement also holds for Hungary since January 1993 but not for the Czech and Slovak Republics where, since January 1992, the maximum duration has been shortened to 6 months.¹³³

In summing up, not least due to the substantial changes unemployment benefit systems have undergone during the transition period, they do not seem extraordinarily generous and do not outperform OECD standards but in some cases fall short of these. While outflows into non-activity may have increased in due

¹³²See Boeri and Scarpetta (1994) for details. Parts of these paras as well as table 10 draw upon their work.

¹³³Source: Scarpetta and Reutersward (1994).

course of the change in eligibility, no such claim can be made for outflows into employment.¹³⁴

4.3 Structure of Employment and Output

It is conventional wisdom and has been documented elsewhere several times, that the structure of output and employment in CEE was biased towards heavy industry and agriculture and against the service sector. Table 5 serves as a reminder of these structures and compares them with that of West Germany (with caveats regarding sector definitions and measurement problems). Moreover, in the former planned economies the output and employment structure was also driven by political and military aspects such as the industrial base in Slovakia.

Table 5 also provides evidence for sectoral shifts between 1988 and 1992. The share of employment in industry and agriculture has fallen in all economies, sometimes despite a rising share of output as in the CSFR. As has been pointed out by Burda (1994c); the strength of manufacturing in the CSFR reflects strong Western demands for intermediate goods of the CSFR. This country (as well as others) has sharply redirected its exports to the West (63 percent in the CSFR and 75 percent in Hungary) in due course of the collapse of the CMEA. On the other hand, employment in the service sector has increased. Most remarkable is Hungary whose share comes close to that of West Germany.

Another aspect which distinguishes CEE countries from OECD economies and highlights differences among CEE countries is the development of employment in the private sector. This sector has expanded rapidly in all countries (albeit to a different extent) and has provided most of the additional jobs created during the transition period, although sectors such as health and education and public administration have also grown. More precisely, the share of employment in the private sector developed as follows (percentages):¹³⁵

	1989-91	1992
Czech Republic (1989)	1	31
Slovak Republic (1989)	1	17
Hungary (1991)	34	36
Poland (1990)	30	58

As can be seen the biggest jump in these shares is made in the Czech Republic and Poland. Despite considerable efforts the Slovak Republic is lagging behind. While in the Czech Republic the number of self-employed has grown from 20 to 643 thousands between 1989 and 1993/2 (1993/2: 13 percent of total employment),

¹³⁴This is evidenced by stability tests for the matching function, see Boeri (1994a) and Scarpetta and Reutersward (1994).

¹³⁵Sources: Blanchard et al. (1994), table 1; Commission of the European Communities, Employment Observatory Central and Eastern Europe Nr. 5 (Dec. 1993), p. 26.

self-employment remained fairly stable in Poland despite some fluctuations.¹³⁶

5 What now?

When dealing with unemployed persons Thomas Robert Malthus in 1798 pointed out that "these are the unhappy persons, who in the great lottery of life, have drawn a blank". Be that as it may the question is whether helping the unemployed in CEE countries is a hopeless undertaking and, if not, what can be done now? To be sure this is a difficult task given our incomplete knowledge about the unemployment problem in Western Europe¹³⁷, a caveat which has been emphasized in the introduction.

The output loss and the subsequent fall in employment did not come as a surprise. However, it is less clear why weak levels of output and employment have been so persistent. Therefore, with respect to unemployment the major concern is not so much the question of why inflows into the unemployment pool occur at unprecedented orders in these countries, but why it is so difficult to escape from unemployment. Too low an outflow rate means that unemployment becomes more and more persistent. Put differently, hysteresis effects are gaining importance in CEE countries. This is the real problem. As is well known many countries in Western Europe are plagued with a high share of long-term unemployment up to some 60 percent in Ireland and Italy.¹³⁸ To cope with long-term unemployment is a task of highest priority. Clearly, to combat unemployment is expensive, but to wait becomes more expensive. And it is most expensive to lock the stable door after the horse has bolted as is the situation in Western, Central and Eastern Europe. Therefore, Europe nearly as a whole is facing the same challenge. What can be done?

There is a need for a two-fold strategy. First, considerable efforts have to be undertaken to prevent still short-term unemployed persons from falling into long-term unemployment. Obviously, this requires the outflow rate to be increased substantially. Second, active labor market policies have to be targeted to long-term unemployment.

More specifically, to promote job creation it is probably not sufficient for all CEE countries to rely on job creation in newly privatized firms although this will become more and more important as time passes. Besides functioning capital markets this requires the removal of institutional barriers which hinder the growth of small and medium sized firms. However, given the experience with job gains and job losses in OECD countries, CEE countries are not advised to subsidize heavily new establishments. In contrast to earlier studies it is now sufficiently documented that net employment changes in most OECD countries mainly stem

¹³⁶ibidem p. 35.

¹³⁷See Bean (1994) for a recent survey.

¹³⁸Source: OECD, Employment Outlook July 1994, p. 206

from net expansions of existing firms rather than of net entries.¹³⁹ Of course, that does not mean that new establishments do not contribute to employment growth. They do but at the same time job losses are substantial due to a relatively low survival rate of new firms. Hence, policies which promote births of firms are faced with high risks of misdirecting scarce financial resources. It seems more efficient to remove potential institutional barriers for new establishments and use the resources elsewhere. May be that in some cases devoting resources to facilitating the growth and development of those new firms with clear promises for growth may be helpful, although "picking winners" is a difficult, if not unsurmountable task. Needless to emphasize that not much resources should be spent for job creation in state owned enterprises unless it is clear that a successful restructuring is under way there. Given the deteriorated infrastructure in CEE countries, a better policy is to promote job creation in public works which improve the infrastructure. In addition, public services need development in CEE countries and creating jobs there will also turn out a promising policy. The welfare gains will probably outweigh the net fiscal burden, i.e., the payment of wages and the costs of organizing such public works less the amount of unemployment and social benefits being paid now. Moreover, creating jobs through public works enables long-term unemployment directly to be combat. As is well known, it is essential for unemployed persons not to lose work experience. To offer jobs for them in public works may outperform measures such as training and retraining.

This brings us to active labor market policies. At the outset it should be stressed that labor market policies alone are not able to remedy a shortage of excess demand for jobs. But they can attempt to help the unemployed to search and qualify for available jobs and, in some cases, temporarily create jobs by subsidizing employment for special groups such as long-term unemployed persons. As has been mentioned the task is to reduce the flows into long-term unemployment as well as to cope with the stock problem, i.e., to help the long-term unemployed escape from this status. The flow problem can be mitigated by active labor market policies, by special training programs targeted to special groups and designed to overcome individual obstacles to receive a job. Precise targeting and a careful assessment of individual needs should be the major program design features. To encourage the unemployed to undergo such training measures it is essential that a sufficient gap exists between the compensation paid to those on a training scheme and regular unemployment benefits. Evenly important is to overcome an understaffing of CEE labor offices and a training of the personnel in the employment services. This has to be supported by modern information systems such as a country-wide computerized network on unemployed persons and vacancies. Such an assistance provided by labor offices may be especially effective when it is organized as a mandatory component of the unemployment benefit system. In order to reduce mismatch problems labor mobility is essential. However, mobility

¹³⁹Source: OECD, Employment Outlook July 1994, chapter 3.

grants will be of limited effectiveness given their small importance compared with the income obtained during expected job-length. At best, mobility loans may be helpful. A well functioning housing market is much more important to encourage mobility.

To cope with the stock problem of long-term unemployment is even more demanding and anything but a success story according to experiences made in OECD countries.¹⁴⁰ As has been outlined before active labor market policies for long-term unemployed must contribute to maintaining their contact with the labor market in order to remove stigmatization and demotivation. Appropriate measures include placement and counselling of the unemployed, training, direct job creation and employment subsidies. There are several examples for such active labor market policies. As has been shown by Disney et al. (1992), the British Restart Programme has substantially reduced the duration of long-term unemployment and the German job creation program (ABM) has reduced unemployment at a low cost-per-job to the public sector because the ABM involves work with regular employers. More recently, a program enacted in the Netherlands has become popular also in Germany. Private, non-profit foundations let employers employ unemployed persons at low costs so that firms can test whether the (long-term) unemployed in question is suitable for a given job. In France, the government introduced a new program ("La Lutte contre l'exclusion et le chômage de longue durée") with the aim evaluating, through individual interviews, the job prospects of people unemployed for more than a year. In nearly 30 percent of the interviews, either a job or a training scheme was to be provided.¹⁴¹ Finally, in France and Spain the introduction of the possibility of fixed-term contracts proved to be successful. They partly received an incentive from the government in the form of reduced social security contributions or direct grants to employers.

In sum, active labor market policies, if properly targeted are of help to cope with long-term unemployed. Even if the great Thomas Robert Malthus, mentioned at the beginning of this section, is right, there is every reason to argue that the the long-term unemployed persons should not be burdened by the blanks alone.

¹⁴⁰See OECD, Employment Outlook July 1993, chapters 2 and 3.

¹⁴¹Source: OECD, Employment Outlook July 1993, p. 109.

Annex A: Estimation of wage equations

As a preliminary attempt and given all due caveats concerning the reliability of data, the following wage equation has been estimated for CEE countries:

$$\Delta \ln W_t = a_0 + a_1 \Delta \ln PC_{t-1} + a_2 U_t + a_3 \Delta U_t + S$$

where W = monthly average earnings per worker
PC = consumer price index
U = unemployment rate
ln = logarithm
 Δ = first difference operator
S = seasonal dummies

The time period is 1990/1 – 1994/2 using quarterly data. CEE's included are Czech Republic, Slovak Republic, Hungary, and Poland. Data are taken from the OECD data base "Short-term Economic Indicators Transition Economies", updated version August 1994. Country specific intercepts are allowed for as well as a different influence of seasonal dummies for Poland. All other coefficients are restricted to be equal across countries in order to save degrees of freedom. Moreover, lags for $\Delta \ln PC$ differ between countries. Estimated parameters are (t-values in brackets):

Coefficients		R^2	DW
$a_1 = 0.45$ (4.3)	Czech Republic :	0.957	1.7
$a_2 = -0.27$ (2.0)	Slovak Republic :	0.977	1.9
$a_3 = -0.69$ (2.8)	Hungary :	0.996	2.1
	Poland :	0.689	2.0

To test for the validity of the restrictions, that the coefficients for one regressor are the same across countries, standard Wald tests were performed. The test statistics are asymptotically χ^2 -distributed and have corresponding probability values denoted by P which are the probabilities that a χ^2 -distributed random variable takes a value greater than the calculated test statistic. If P is less (greater) than the respective significance level α , then the null hypothesis, i.e., that all coefficients are equal, is (not) rejected. The results are as follows:

	χ^2	P
$a_1 :$	0.40	0.94
$a_2 :$	6.89	0.07
$a_3 :$	5.20	0.16

Annex B: Estimation of labor demand equations

Even it is daring to test for a stable labor demand equation with the poor data existing for the ECC countries we have obtained some satisfactory results. The estimated equation runs as follows:

$$\ln E_t = b_0 + b_1 \ln Y_t + b_2 \ln W_t^R + b_3 \ln E_{t-1}$$

where E_t = employment in industry
 Y_t = index industrial production
 W_t^R = real wage rate

Quarterly data have been used and the time period is 1990/1 – 1994/2.¹⁴² The data stem from the OECD data base “Short-term Economic Indicators Transition Economies”, updated version August 1994. The 1992 employment data for the Czech Republic had to be completed by interpolation. Real wages were calculated using the producer price index and the industrial earnings.¹⁴³ Country specific intercepts have been allowed for, all other coefficients except the lagged endogenous variable for Poland are restricted to be equal. The results are:

Coefficients				R^2	DW
b_1	=	0.09	(3.6)	Czech Republic :	0.987 0.6
b_2	=	-0.11	(3.9)	Slovak Republic :	0.651 1.6
b_3	=	0.57	(8.9)	Hungary :	0.557 1.3
Poland: b_3	=	0.74	(15.8)	Poland :	0.969 2.0

The Wald statistic is:

	χ^2	P
b_1 :	5.96	0.11
b_2 :	1.74	0.63
b_3 :	4.08	0.13

¹⁴²Only monthly data were available for the Hungarian production price index to calculate real wages.

¹⁴³Total earnings have been used for Hungary and the Slovak Republic.

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Figure 1: Actual and simulated unemployment rates: Poland

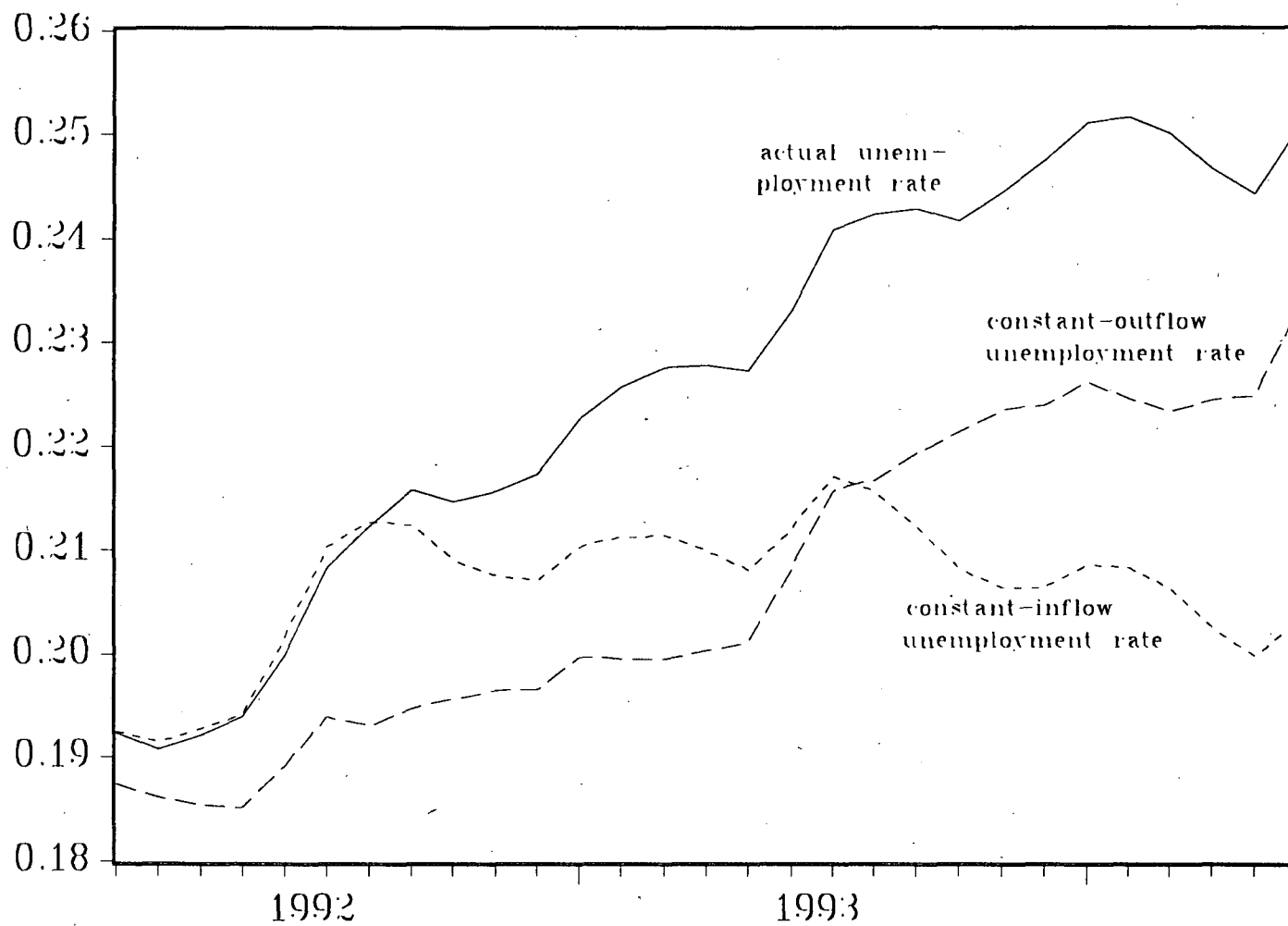


Figure 2: Actual and simulated unemployment rates: Slovak Republic

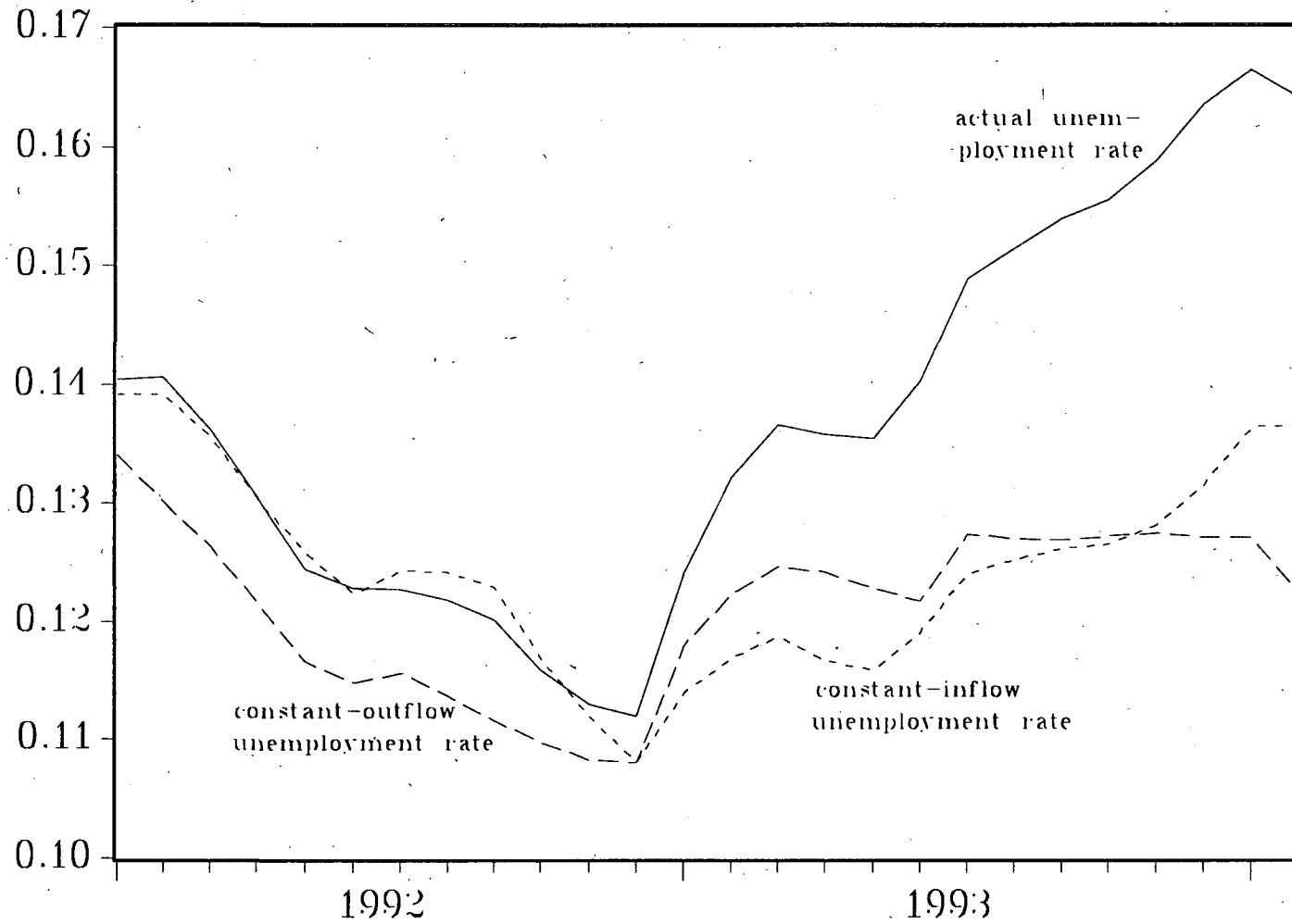


Figure 3: Actual and simulated unemployment rates: Czech Republic

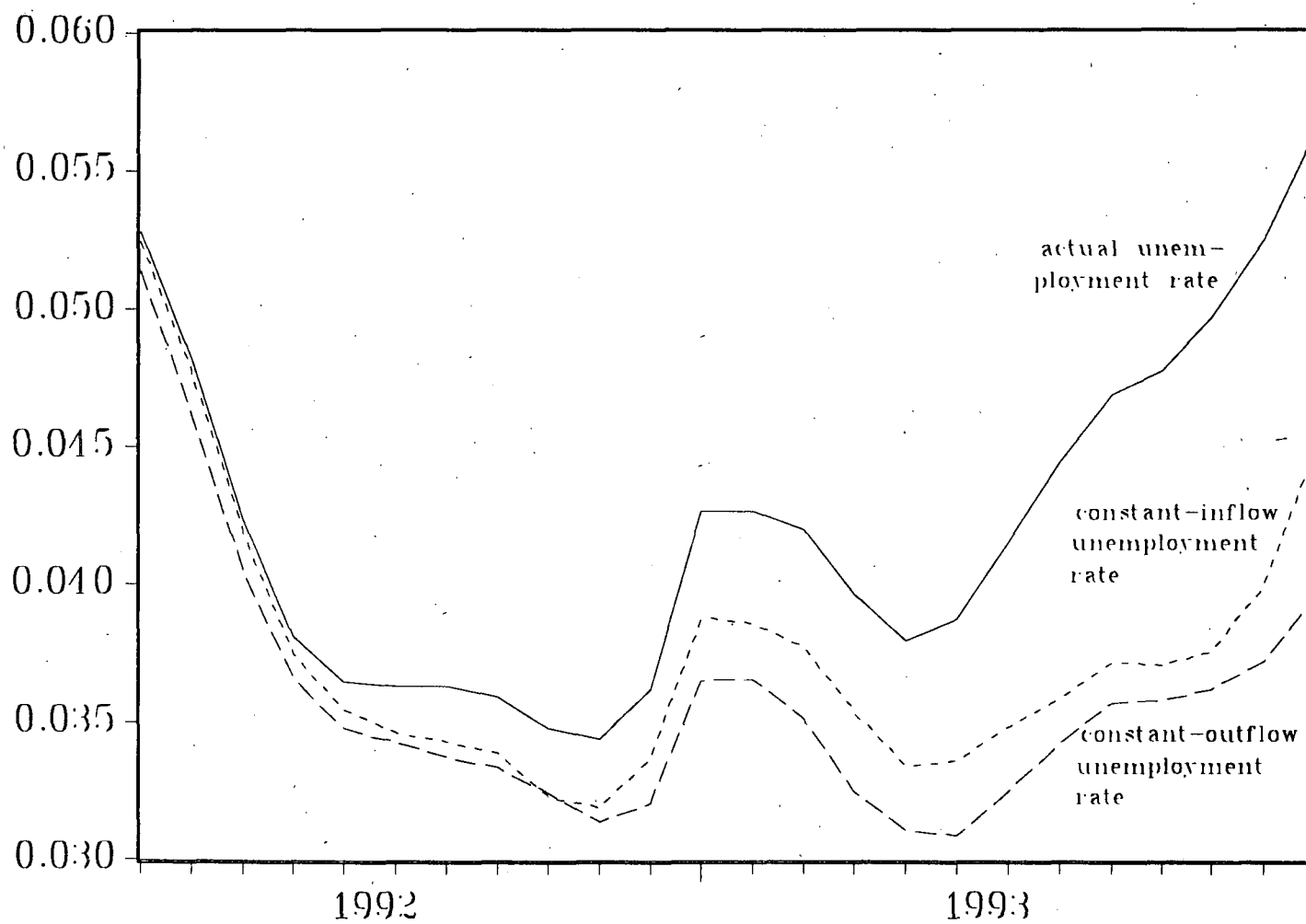


Table 1: Summary Statistics: Czech Republic

Year	Real GDP Growth	Growth Rate of Industrial Production	Inflation Rate of Consumer Prices	Unemployment Rate	Unemployed/Vacancy Ratio	Employment Growth		Labor Productivity Growth	Real Product Wage Growth
						Total	Industry		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1989	+ 5	+ 2	2	n.a.	n.a.	+ 0		+ 2	+ 1
1990	- 1	- 4	10	1	1 ^{a)}	- 0	- 6	- 0	- 6
1991	- 14	- 24	57	4	4	- 5	- 15	- 15	- 40
1992	- 7	- 14	11	3	2	- 3	- 6	- 2	+ 12
1993	- 0	- 7	21	4	3	- 0		- 1	+ 0
1994 ^{b)}	+ 2		10	4					
1995 ^{b)}	+ 3		8	5					

^{a)} Oct, Dec 1990

^{b)} forecasts by German Institutes of Economic Research (October 1994)

Table 2: Summary Statistics: Slovak Republic

Year	Real GDP Growth	Growth Rate of Industrial Production	Inflation Rate of Consumer Prices	Unemployment Rate	Unemployed/Vacancy Ratio	Employment Growth		Labor Productivity Growth	Real Product Wage Growth
						Total	Industry		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1989	+ 1	- 1	1	n.a.	n.a.	- 0		- 0	+ 1
1990	- 3	- 4	10	2	2	- 1	- 2	- 1	- 6
1991	- 14	- 25	61	12	24	- 8	- 15	- 14	- 45
1992	- 7	- 14	10	10	24	- 5	- 8	- 3	+ 10
1993	- 4	- 18	23	14	25			- 12	- 2
1994 ^{a)}	- 2		15	15					
1995 ^{a)}	+ 2		12	16					

^{a)} forecasts by German Institutes of Economic Research (October 1994)

Table 3: Summary Statistics: Hungary

Year	Real GDP Growth	Growth Rate of Industrial Production	Inflation Rate of Consumer Prices	Unem- ployment Rate	Unemployed/ Vacancy Ratio	Employment Growth		Labor Productivity Growth	Real Product Wage Growth
						Total	Industry		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1989	- 0	- 1	17	1		- 1			1
1990	- 3	- 9	28	2		- 3	- 5	- 4	0
1991	- 10	- 22	35	8		- 10	- 10	- 9	- 4
1992	- 5	- 11	23	12	22	- 7	- 23	16	2
1993	- 2	+ 4	23	12	23	- 5			- 2
1994 ^{a)}	+ 1		20	11					
1995 ^{a)}	+ 2		22	12					

^{a)} forecasts by German Institutes of Economic Research (October 1994)

Table 4: Summary Statistics: Poland

Year	Real GDP Growth	Growth Rate of Industrial Production	Inflation Rate of Consumer Prices	Unemployment Rate	Unemployed/Vacancy Ratio	Employment Growth		Labor Productivity Growth	Real Product Wage Growth
						Total	Industry		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1989	+ 0	- 0	251	0		0			+ 12
1990	- 12	- 24	585	6	21	- 6	- 6	- 18	- 27
1991	- 7	- 12	70	12	74	- 4	- 9	- 3	0
1992	+ 3	+ 4	43	14	110	- 2	- 8	+ 12	- 3
1993	+ 4	+ 8	36	16	133				3
1994 ^{a)}	+ 4		30	17					
1995 ^{a)}	+ 5		25	16					

^{a)} forecasts by German Institutes of Economic Research (October 1994)

Sources for Tables 1 – 4

Column	Czech Republic	Slovak Republik	Hungary	Poland
1	1989–91: [7] 1992–95: [1]	1989–91: [7] 1992–95: [1]	1989: [2] 1990–95: [1]	1989: [2] 1990–95: [1]
2	1989–93: [7]	1989–93: [7]	1989–92: [2] 1993: [8]	1989–92: [2] 1993: [8]
3	1989–91: [7] 1992–95: [1]	1989–91: [7] 1992–95: [1]	1989: [2] 1990–95: [1]	1989: [2] 1990–95: [1]
4	1990–91: [7] 1992–95: [1]	1990–91: [7] 1992–95: [1]	1989: [2] 1990–95: [1]	1989: [2] 1990–95: [1]
5	1990 (Oct, Dec) – 1993: [12]	1990 (Oct, Dec) – 1993: [12]	1989–90: [10] 1992–93: [9]	1992–93: [9]
6	1989–93: [7]	1989–92: [7]	1989–92: [11] 1993: [8]	1989–92: [6]
7	1990–92: [3]	1990–92: [3]	1990–92: [3]	1990–92: [3]
8	1989–93: [7]	1989–93: [7]	1990–92: [3]	1990–92: [3]
9	1989–93: [7]	1989–93: [7]	1989–92: [8]	1989–93: [8]

Identification of Source Numbers:

- [1] OECD, Economic Outlook 55. June 1994, pp. 115–118.
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Table 5: Structure of Output and Employment (Percentages)^{a)}

Country	Agriculture				Industry				Services ^{b)}			
	Output		Employment		Output		Employment		Output		Employment	
	1988	1992	1988	1992	1988	1992	1988	1992	1988	1992	1988	1992
Czech Republic	7 ^{c)}	6 ^{d)}	11	8	60 ^{c)}	68 ^{d)}	47	44	33 ^{c)}	29 ^{d)}	42	48
Slovak Republic	7 ^{c)}	6 ^{d)}	14	12	60 ^{c)}	64 ^{d)}	46	41	33 ^{c)}	30 ^{d)}	40	47
Hungary	9	9	18	10	31	26	40	37	60	65	42	53
Poland	8	8	30	29	51	40	35	32	41	52	35	39
West Germany	2	1	4	3	41	39	40	39	57	60	56	58

Notes: ^{a)} Output: fraction of GDP originating in agriculture, industry, and services, respectively.
Employment: share of employment in agriculture, industry (West Germany: manufacturing sector plus construction plus energy plus mining), and services, respectively.

^{b)} "Services" is a residual which includes government but excludes informal sector.

^{c)} CSFR

^{d)} measured as a fraction of Net Material Product.

Sources: Burda (1994c), p. 4, based on EBRD and EC statistics; Sachverständigenrat zur Begutachtung der gesamtwirtschaftlichen Entwicklung, Jahresgutachten 1993/94, tables 24* and 27*; calculations by the author.

**Table 6: Breakdown of changes in working-age population
1989–1992** (Percentages of working-age population in 1989)

	Czech Republic	Slovak Republic	Hungary	Poland
<u>Males</u>				
Working-age population	2.7	2.2	0.9	1.7
Employment	-3.6	-12.7	-13.4	- 9.3
Unemployment	1.8	9.0	10.0	9.5
Inactive	4.6	5.9	4.3	1.5
<u>Females</u>				
Working-age population	4.2	2.9	1.8	1.6
Employment	-7.2	-18.4	-12.5	-9.4
Unemployment	2.7	10.0	7.7	10.8
Inactive	8.6	11.3	6.7	0.2

Source: Commission of the European Communities, Employment Observatory,
Central and Eastern Europe, Nr. 5 (December 1993), p. 16.

Table 7: Labor Force Participation Rates (Percentages)^{a)}

Country	M a l e s					F e m a l e s				
	1989	1990	1991	1992	1993	1989	1990	1991	1992	1993
Czech Republic	96	92	93	92		90	86	82	78	
Slovak Republic	92	88	89	88		80	78	75	73	
Hungary	85	84	78	81 ^{b)}		78	75	74	72 ^{b)}	
Poland	83	82	81	81		69	68	70	69	

Notes: ^{a)} Active population (including armed forces and employed persons in the informal sectors) as a percentage of population in working age (approximately 15–60 for males and 15–55 for females, except Poland where 15–60 holds for females, too).

^{b)} break in time series, figure is not directly comparable with previous one.

Source: Commission of the European Communities, Employment Observatory, Central and Eastern Europe, various issues.

Table 8: Expenditures of Labor Market Policies in CEE and OECD Countries
(Percentages)^{a)}

Country and Year	Unem- ployment Rate ^{b)}	Expenditures as a percentage of GDP			Expenditures for active labor market policies per unemployed as a fraction of output per worker
		Active	Passive	Total	
	(1)	(2)	(3)	(4)	(5)
Czech Republic					
1991	3.3	0.18	0.23	0.41	12.0
1993	4.4	0.20	0.16	0.36	7.9
Slovak Republic					
1991	7.1	0.28	1.05	1.33	14.8
1993	13.1	0.44	0.77	1.22	7.1
Hungary					
1991	4.3	0.30	0.95	1.25	27.7
1993	13.5	0.67	2.27	2.94	18.9
Poland					
1991	9.5	0.29	1.35	1.64	15.6
1993	15.5	0.36	1.82	2.18	12.2
France 1992	10.2	0.98	2.01	2.99	25.8
Germany (unified) 1993	7.3	1.58	2.60	4.18	52.0
Spain 1992	18.4	0.54	3.07	3.61	16.0
Sweden 1992	4.8	3.16	2.78	5.94	118.0

Notes: a) See text for explanations; b) CEEs: average number of registered unemployed divided by the labor force, OECD: OECD standardized unemployment rates.

Sources: Boeri and Scarpetta (1994), table 3; Scarpetta and Reutersward (1994), table 9.

Table 9: Breakdown of Active Labor Market Expenditures 1991 and 1992
(Percentages of Total Expenditures)

	CSFR		Hungary		Poland	
	1991	1992	1991	1992	1991	1992
Training	6.9	7.0	17.8	22.3	58.7	69.2
Job creation schemes	61.6	76.2	24.9	33.5	20.4	22.5
Assistance for new business	17.1	4.5	41.2	18.5	18.2	8.3

Source: Commission of the European Communities, Employment Observatory, Central and Eastern Europe 4 (May 1993), p. 27.

**Table 10: Replacement Ratios for CEE and OECD Countries
by Previous Earnings and Duration of Unemployment
(Percentages)^{a)}**

Earnings		2/3 of average monthly wage				average monthly wage				two times monthly average wage			
Duration (months)		0-3	4-6	7-12	13-24	0-3	4-6	7-12	13-24	0-3	4-6	7-12	13-24
Czech Republic	A	60.0	59.2	59.2	59.2	60.0	50.0	39.4	39.4	34.8	34.8	19.7	19.7
	B	58.7	55.3	48.6	44.3	58.7	46.8	32.4	29.6	34.1	32.5	16.2	14.8
Slovak Republic	A	61.2	61.2	51.7	51.7	60.0	50.0	34.5	34.5	36.0	39.6	17.2	17.2
	B	60.5	57.9	52.3	46.4	59.3	47.3	34.9	31.0	35.6	37.4	17.4	15.5
Hungary	A	75.0	64.1	64.1	38.1	75.0	60.0	60.0	25.4	39.0	37.2	37.2	12.7
	B	65.6	52.7	47.1	27.0	65.6	49.3	44.1	18.0	34.1	30.6	27.3	9.0
Poland	A	54.0	54.0	54.0	42.0	36.0	36.0	36.0	28.0	18.0	18.0	18.0	14.0
	B	47.9	52.2	49.2	40.3	31.9	34.8	32.8	26.9	16.0	17.4	16.4	13.4
Austria		45.0	45.0	42.0	41.0	42.0	42.0	39.0	39.0	25.0	25.0	24.0	24.0
France		63.0	63.0	63.0	42.0	56.0	56.0	56.0	35.0	48.0	48.0	48.0	27.0
Germany		45.0	45.0	45.0	40.0	42.0	42.0	42.0	37.0	33.0	33.0	33.0	30.0
Spain		80.0	80.0	70.0	60.0	57.0	57.0	57.0	57.0	28.0	28.0	28.0	28.0
U.K.		23.0	23.0	23.0	21.0	15.0	15.0	15.0	14.0	8.0	8.0	8.0	7.0

a) See text for explanations; CEE: 1992-93; OECD: 1991.

Source: Boeri and Scarpetta (1994), table 4.