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From Labour Shortage
to Labour Shedding: Labour
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FROM LABOUR SHORTAGE TO LABOUR SHEDDING:
LABOUR MARKETS IN CENTRAL AND EASTERN EUROPE

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PARIS 1992

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All countries in Central and Eastern Europe are experiencing a switch from labour hoarding to labour shedding with rapidly rising unemployment. Identifying each country's specific labour market problems -- in particular, those groups which are most vulnerable to unemployment -- will be essential for developing appropriate policies. Based on detailed statistical information being collected by the OECD, this paper provides an overview of labour markets in Central and Eastern Europe, both prior to and since the start of the transition process.

Section I of this paper describes the main characteristics of employment and wage structures which have been inherited from the former centrally-planned system in Central and Eastern Europe and also analyses longer-run demographic and labour force trends. Section II discusses more recent labour market developments, including the nature of employment losses, job creation in the private sector and the characteristics of the unemployed. Finally, some specific recommendations are provided on how to improve monitoring systems of labour market developments in these countries.

* * * * *

Tous les pays d'Europe centrale et orientale font l'expérience d'un passage d'une rétention à un délestage de main d'oeuvre, ce qui entraîne un chômage en expansion rapide. Identifier les problèmes du marché du travail spécifiques à chaque pays -- en particulier les groupes les plus vulnérables vis à vis du chômage -- est essentiel pour le développement de politiques appropriées. Ce document donne, à partir d'informations statistiques détaillées collectées par l'OCDE, un aperçu sur les marchés du travail en Europe centrale et orientale, avant et depuis le début du processus de transition.

La section I de ce document décrit les principales caractéristiques des structures d'emploi et de salaire héritées de l'ancien système à planification centralisée d'Europe centrale et orientale et analyse également les tendances à long terme de la démographie et de la population active.

La section II examine l'évolution récente du marché du travail, y compris la nature des pertes d'emploi, la création d'emplois dans le secteur privé et les caractéristiques des chômeurs.

Enfin, quelques recommandations sont formulées sur la manière d'améliorer les systèmes de suivi de la situation du marché du travail dans ces pays.

**FROM LABOUR SHORTAGE TO LABOUR SHEDDING:
LABOUR MARKETS IN CENTRAL AND EASTERN EUROPE**

TABLE OF CONTENTS

	<u>Page</u>
I. INTRODUCTION	1
II. THE LEGACY OF CENTRAL PLANNING	2
A. Demographic trends and labour supply	2
B. Labour hoarding and shortages	3
C. Sectoral composition of employment	3
D. A distorted labour market	4
III. RECENT DEVELOPMENTS SINCE THE BEGINNING OF TRANSITION	4
A. Large job losses	5
B. A growing private sector	7
C. The appearance of open unemployment	7
IV. CONCLUSION	9
NOTES	12
REFERENCES	14

LIST OF TABLES

1. Demographic trends	16
2. Labour force participation rates	16
3. Average monthly wages and salaries	17
4. Output, employment and productivity developments	18
5. Employment losses in 1990	19
6. Open unemployment in Central and Eastern Europe	19

LIST OF CHARTS

1. Growth of the working age population and old age dependency ratio	20
2. Employment by sector	21
3. Distribution of employees in industry by enterprise and establishment size	22
4. Registered unemployed as a percent of the labour force	23
5. Characteristics of unemployment in Central and Eastern Europe	24

FROM LABOUR SHORTAGE TO LABOUR SHEDDING: LABOUR MARKETS IN CENTRAL AND EASTERN EUROPE

I. INTRODUCTION

1. From being virtually non-existent prior to 1990, open unemployment has risen rapidly in all Central and Eastern European countries as a result of a deep recession and the beginnings of the transition period towards market economies. Whether economic reforms in these countries succeed or fail will depend crucially on how well each country copes with a large and possibly persistent rise in unemployment. A large number of job seekers with limited chances of rapid reintegration into work and, more generally, the spread of new forms of poverty might erode the social consensus gathered around the objectives and scope of the transition to a market economy.

2. The purpose of this paper is to shed some light on what lies behind the growth in unemployment in these countries. This requires both a careful analysis of statistical information provided by these countries on recent labour market developments and the identification of the main structural features of labour markets in partly reformed planned economies. We will start from the latter as we believe that background information on the characteristics of labour markets in Central and Eastern Europe is required in order to fully understand some anomalies of the job reallocation process and to disentangle short-term and structural components of the current rise in unemployment.

3. Therefore, in Section II, an overview is made of the similarities and differences between labour markets in Bulgaria, Czechoslovakia, Hungary, Poland and Romania, as inherited from their centrally-planned past. A comparison is also made with labour markets in OECD countries. Recent economic and labour market developments in Central and Eastern Europe are discussed in Section III, with a particular focus on the characteristics of the rapidly rising number of unemployed. In a final section, some policy conclusions are presented.

II. THE LEGACY OF CENTRAL PLANNING

4. While some of the main features of labour markets in Central and Eastern Europe are common across all countries, others are not. Despite the imposition of a system of centralised planning in all countries over the previous 40 to 50 years there is still significant diversity across national labour markets. The diversity may not be as large as amongst the different OECD member countries but nevertheless does underline the need for any external offers of technical assistance and/or policy advice to take into account the specific problems that each country will face during the transition to a market-based economy.

A. Demographic trends and labour supply

5. One feature which cuts across all national frontiers in Central and Eastern Europe is a very high mortality rate for the population as a whole and, in particular, for infants (Table 1). While death rates in the West have fallen over the last 20 years, they have risen or remained unchanged in the East¹. Thus, life expectancy is estimated to be currently around 4 to 7 years lower in Eastern Europe than in Western Europe. These high death rates and low life expectancies are probably more eloquent and poignant indicators of the overall lower standard of living in the East compared to the West than those based on rather unreliable international comparisons of GDP per capita. They also point to significant health and environmental problems which will have to be tackled in Eastern Europe as part of the transition process.

6. The impact of these high death rates on potential growth in labour supply has been offset to some extent by a slower decline in crude birth rates in the East than in the West. Nevertheless, Bulgaria and Hungary -- like many OECD countries -- face rapidly ageing populations over the next ten years with the population of working-age expected to stagnate or fall and old age dependency rates projected to rise (Chart 1). However, in the more populous countries of Central and Eastern Europe, continued growth in the working-age population is likely. Thus, in Bulgaria and Hungary, labour shortages may develop in some sectors despite an initial rise in unemployment because of recession and restructuring associated with the transition. Their ageing populations may also lead to a severe burden being placed on the available resources for providing retirement pensions. In Czechoslovakia, Poland and Romania, on the other hand, there could well be greater pressure to emigrate as the increase in working-age population continues to outstrip growth in jobs. Of course, these trends will also depend on changes in the proportion of the working-age population participating in the labour force.

7. In the past, the potential supply of labour shown in Chart 1 has been converted into utilised labour to a remarkable degree compared with OECD countries. A particularly high proportion of all Eastern European women participate in the labour force whereas participation rates for men are broadly similar in both the East and the West (Table 2). In addition, quite a high proportion of the older population (with the exception of Hungary) continue to be active in the labour force even though retirement ages are relatively low by Western standards (OECD, 1991).

B. Labour hoarding and shortages

8. It is clear that a substantial proportion of this utilised labour supply has been unproductive. Estimates of hidden unemployment or labour hoarding vary considerably but in general range from about 15-30% of the work force (see, for example, Gora, 1991 and Nesporová, 1991). The main reasons that have been advanced for labour hoarding include the former official doctrine of full-employment, lack of "hard budget" constraints on firms and the need for enterprises to keep substantial reserves of labour to meet production targets in the face of uncertain supplies of inputs.

9. Together with labour hoarding, labour shortages also occurred as efforts to increase production concentrated more on the extensive use of resources, including labour, rather than on productivity improvements. Given that participation rates for women and older workers were already high, the potential supply of labour could not easily be expanded to meet this ever increasing demand for labour. Fundamentally, labour shortages arose through the lack of appropriate price signals to co-ordinate labour demand and supply. Wage differentials across sectors and occupations were determined more by equity and ideological concerns than by differences in productivity. As shown in Table 3, the dispersion of wages across broad sectors of the economy was much lower in Central and Eastern Europe than in OECD countries, with the exception of Sweden. Wage differentials also tended to remain fairly fixed over time. Based on a more disaggregated breakdown of earnings by sector, the dispersion of wages would only appear to have increased in Hungary since 1980 and have remained unchanged or decreased elsewhere amongst the former planned economies. However, as in OECD countries, average wages and salaries tend to be higher in the "material sphere of production" (industry, construction, transport and communication) and lower in the "non-material sphere" (including wholesale and retail trade and community and social services). Construction workers, in particular, have typically received much higher wages compared with the average.

C. Sectoral composition of employment

10. In addition to maintaining a tightly compressed structure of wages by sector and occupation, another corner-stone of the planned economies of Central and Eastern Europe was the promotion of a strong industrial base with particular emphasis on heavy industry. A much higher share of the work force is still employed in industry² than in the OECD area (Chart 2). Furthermore, employment in industry has been concentrated in very large enterprises (Chart 3) with the number of small enterprises being virtually non-existent prior to the current reforms. The average factory in terms of employment also tends to be much larger than in OECD countries, although the difference is less marked than on an enterprise basis.

11. Despite the past history of promoting industry in all Eastern European countries, several important differences in the sectoral composition of employment still remain. For example, in 1989, while the service sector accounted for more than 60 percent of all jobs in the OECD area, it provided for only slightly more than 25 percent of jobs in Romania to just over 40 percent in Hungary. Employment in agriculture also continues to remain

particularly important in Poland and Romania.

12. Trends over time in the sectoral composition of employment in each of the Central and Eastern European countries have also differed. Hungary, with the greatest experience of trying to reform the state-run enterprise sector, most resembles OECD countries in showing a decline since the 1970s in the share of employment in industry (Chart 2). In Poland there was also a decline over the 1980s but this was associated with several periods of falling industrial output. On the other hand, in Czechoslovakia, the share of employment in industry during the last 30 years has remained at a high and remarkably stable level.

D. A distorted labour market

13. As shown in the previous sections there are both similarities and differences in the labour markets of each Central and Eastern European country. Some countries face the immediate problem of an ageing population while others do not. Some like, Hungary, appear to have moved further towards OECD-type labour market structures than others. Nevertheless the picture that emerges from this brief sketch of the labour markets under central planning is one of an unhealthy work force concentrated in large industrial enterprises and with little or no incentive to move between sectors. Furthermore, employment was both a right and an obligation and, hence, there had been only negligible experience of open unemployment. Changing this severely distorted labour market structure and coping with the inevitable rise in unemployment will be essential components of the transition to market-based economies. The experience so far of this transition process is discussed in the following section.

III. RECENT DEVELOPMENTS SINCE THE BEGINNING OF TRANSITION

14. The start of the current wave of reforms in Central and Eastern Europe was marked by a deep recession in all countries. A number of external shocks were partly responsible: trade within the Eastern bloc collapsed; energy prices rose as a result of the Gulf war and the move by the USSR to world pricing of its energy exports; and economic activity in the West also slowed. Most countries in Central and Eastern Europe also embarked upon quite strict stabilisation programmes and relative prices have been changed dramatically. There was also an increase in general uncertainty as the former system of central planning collapsed before new institutions and policies could be set up. As a result, output in most countries fell considerably in 1990 and in 1991 (Table 4) and high rates of inflation were recorded (even if possibly somewhat understated), partly fuelled by price liberalisation.

15. In the face of the recession and the beginnings of the reform process, labour markets of Central and Eastern Europe have been characterised by the simultaneous occurrence of three phenomena. First, aggregate employment has declined substantially in all major branches of activity including most service industries. Second, employment in the private sector has increased quite

dramatically, reflecting both the actual startup of new business activities and the privatisation of many relatively small firms previously belonging to the socialised sector. Thirdly, open unemployment has started to rise steeply whereas vacancies registered at labour offices have fallen and sometimes almost disappeared, with a consequent explosion of U/V ratios. These three major developments have been shared by all economies in transition, although the speed and characteristics of these processes have differed considerably within and across countries.

A. Large job losses

16. Employment has declined markedly in all countries, except Romania, where, however, short-time working arrangements have been quite extensive prior to the introduction in early 1991 of a new unemployment law. For all countries the official statistics may not adequately cover the private sector (and a sizeable parallel economy), and so the fall in employment may be somewhat overstated. However, at the same time, they may not be giving an adequate reflection of declines in labour volumes, taking into account the number of hours worked. For instance, in Romania, the total number of hours worked in industry fell by more than 13 percent in the first 9 months of 1990 compared to the same period in 1989³.

17. Even if large, job losses have not been as strong as the fall in output volumes (Table 4), which implies a decline of labour productivity. This is not surprising as productivity tends to behave pro-cyclically also in Western countries. However, the fall in productivity was in some countries (for example, Romania and Poland) not only quite substantial, but also only slightly lower than the fall in output, implying a very low responsiveness of employment to changes in output. Such a low elasticity of employment with respect to changes in activity levels is generally observed in the OECD area on a quarterly basis; on a yearly basis, a fall in output by one percentage point tends to be associated with a 0.7-0.8 per cent fall in employment⁴. In the United Kingdom, for example, a fall in industrial production of 5 per cent in the first quarter of 1975 was accompanied with a fall in employment by only 0.5 per cent, but over 1975 as a whole industrial output fell by 6.7 per cent and employment by 5.6 per cent, implying a 1.1 per cent fall in labour productivity. By contrast, in Poland a 24 per cent fall in industrial output in 1990 has been associated with a 6 per cent decline in employment and, hence, a fall of almost 20 per cent in labour productivity. Of course, the scale of the collapse in production which is occurring in Eastern Europe was only experienced in the West during the Great Depression. Nevertheless, it would appear from the dramatic declines in labour productivity which have occurred in 1990 and so far in 1991 that the adjustment of employment to changes in output is much slower for Central and Eastern European countries than for OECD economies and, therefore, falls in employment are likely to continue well after the halt to the current decline in economic activity.

18. There are several possible explanations for this lagged response of employment to changes in output. Some of these have to do with the political economy of the liberalisation process, namely the consensus-seeking patterns followed by governments in a context where employment is dominated by state sector jobs. Other explanations, such as the control exerted by workers on the management of firms, the lack of experience by managers with dismissal policies

and the chronic tendency of firms to hoard labour, refer to the microeconomic legacies of the past system and have been extensively analysed in the literature⁵. Finally, the absence of mechanisms enforcing the exit of firms and the survival margins temporarily provided to loss-making units by large inter-enterprise credit facilities have also contributed to reducing employment losses during the initial phases of the transition. Nevertheless, current developments in labour productivity are rather disturbing, especially when account is made of the initial conditions, namely, of low labour productivity levels (by Western standards), prevailing at the beginning of the transition process.

19. The decline in the overall level of employment in 1990 has been mainly concentrated in industry but there were also marked falls of employment in agriculture and construction (Table 5). Surprisingly enough, given the low share of total employment in services compared to OECD countries (see Section I), employment also declined in service activities in most countries. A notable exception is Czechoslovakia, where there was an increase in employment in community services and a strong rise in public administration jobs following the establishment of a network of labour offices and social security centres across the country. Overall, major sectoral shifts have still to take place and the lack of net job creation in most service sectors so far suggests that further job losses in mining and manufacturing, notably in heavy industries, may not be fully offset in the short-term by job gains elsewhere.

20. The limited information available suggests that employment losses have been distributed over a wider number of business units rather than involving large job losses concentrated in relatively few firms. So far, individual layoffs have predominated over group layoffs in all Central and Eastern European countries⁶ but the relative importance of mass dismissals is likely to increase over time, as indicated by the experience of those countries which were the first to embark on a wide-ranging process of liberalisation. In Poland, for example, the share in total unemployment of workers dismissed via group layoffs has steadily increased over time from about 4 per cent in January 1990 to over 21 per cent in September 1991. Large scale layoffs are to be expected in all countries as the phasing out of many industrial subsidies and a greater exposure to international competition lead to the closure of many large and inefficient plants. According to estimates of the Czechoslovakian Federal Government, in some heavily subsidised industries dominated by a few large plants, such as arms production, metallurgy, and mining, employment is expected to fall in the course of 1991 by almost 100,000 or more than one per cent of the labour force.

21. Finally, there is evidence that small units have displayed a remarkable dynamism. Small and medium sized firms have been accounting for an increasing share of total employment in most countries even before the start of the current reforms but there has been an acceleration of this process throughout Central and Eastern Europe during the initial phase of the transition process, especially for small businesses. The case of Hungary is particularly striking: the number of small firms with twenty or less employees as a share of the total number of private firms jumped from 22.7 per cent in January 1989 to 59.5 per cent in December 1990. This does not necessarily mean that small firms have been a strong source of new job creation. For instance, many small activities might have originated from the decentralisation of large companies, especially in those countries where incentives for the creation of small

businesses have been put into place⁷, or they might reflect the legal registration of activities that were previously part of the so-called "parallel" or unofficial economy.

22. No matter how important or not the development of many new small scale activities has been in the job generation process, it has certainly contributed to introduce into the economy more flexible wage systems and contracting and working-time arrangements⁸. This is by itself an important development given the rigidity of labour allocation inherited from the former command system.

B. A growing private sector

23. In Hungary and Poland, the fall in state-sector employment (including the co-operative sector) in 1990 has been partly softened by a rise in private sector employment (Table 5). In Poland, in particular, employment rose by about half a million in the private sector over the year to end-December 1990 and, thus, partly offset a loss of more than 1.1 million jobs in the state sector. Similarly, in Hungary, job gains in the private sector have made up for about half of the job losses in the public sector. In Bulgaria, on the other hand, the growth in private sector employment (in absolute terms) is still very small compared to the decline of employment in public enterprises.

24. In the case of Czechoslovakia no reliable information is available on the overall dynamics of private sector employment. However, whilst employment in the state sector fell by almost 200 thousand in 1990 compared to 1989, the number of "registered private entrepreneurs" has risen by 700 thousand (although many were part-timers) over the year to June 1991. In the first three months of 1991, an additional 160 thousand licenses were provided for the creation of private initiatives, especially in construction, services and light industries⁹. No breakdown of employment according to the ownership of enterprises is available for Romania but, by June 1991, around 150 thousand authorisations had been granted to "private businessmen" on the basis of the decree-law 54/1990¹⁰.

25. Unfortunately, it is not possible, using the statistics currently available, to disentangle the different sources of employment growth in the private sector. For example, employment in a new private shop or restaurant cannot be separately identified from an increase in private sector employment following the privatisation of an existing shop or restaurant. Without such a decomposition, it is difficult to assess the extent to which the growth of the private sector is being associated with the actual creation of new employment opportunities rather than with just a change of status for jobs formerly classified to the state sector.

C. The appearance of open unemployment

26. As part of the reform process in Central and Eastern Europe, unemployment has been officially recognised and a system of unemployment benefits has now been implemented in each of the countries under consideration. From being virtually non-existent at the beginning of 1990, officially recognised unemployment increased in all countries throughout 1990 and 1991. Although lagging behind the fall in output, the rise in unemployment rates was

particularly rapid in Poland (Chart 4) and by October 1991 over 11 per cent of the labour force were unemployed compared with almost 9 per cent in Bulgaria, 7 per cent in Czechoslovakia and just over 6 per cent in Hungary.

27. It should be stressed that for all countries estimates of the number of unemployed are based on registration data. Hence, they are likely to be affected by different eligibility criteria established in each country for receiving unemployment benefits as well as by the scope and efficiency of the network of labour offices. In Poland, for example, during the first six months of 1990 the number of registered unemployed exceeded job losses, reflecting, *inter alia*, sizeable registrations of school leavers and other new entrants in the labour force. Prior to September 1990 all unemployed were entitled to benefits, independently of whether or not they were previously employed, and with the tightening of eligibility criteria the share of school leavers in total unemployment has strongly decreased. For Hungary, preliminary results from the January 1990 population census seem to indicate that the actual number of job seekers (110,000 persons) was almost five times larger than the number of registered unemployed (24,000 persons). Unfortunately, there were no questions on registration in the census and so the two data sets cannot be matched.

28. Who are the unemployed? Chart 5 provides a breakdown of the registered unemployed by sex, major age groups, educational attainment and skill level and by whether they are school leavers or displaced workers. From Chart 5, it would appear that, so far, women have accounted for a disproportionate share of rising unemployment in Central and Eastern Europe. In part, this may reflect the greater impact and first effects of restructuring on those industries employing large numbers of women. Taking into account the particularly high participation rates of women in Central and Eastern Europe (see Section I), the possibility of receiving unemployment compensation and the income opportunities offered by the parallel economy may also have induced some women to leave full-time posts in the state sector. However, the limited information which is available on voluntary quits in the state sector seems to point to a decline since the start of reforms (Góra, 1991). There is also some anecdotal evidence pointing to forms of discrimination against employing women particularly as one way of avoiding extra-labour costs such as maternity leave allowances. Finally, in the case of Bulgaria, the very large share of women in total unemployment (61 per cent) is partly explained by a particularly high incidence of unemployment in those professions with a substantial female representation such as engineers, economists and teachers (Beleva et al., 1991).

29. In all countries for which data are available, displaced workers also represent the vast majority of the unemployed. The particularly low share of school leavers in the total pool of unemployed in Hungary may be partly explained by the fact that it is only since February 1991 that young graduates from high school or university have been allowed to qualify for unemployment compensation. Amongst displaced workers, skilled workers also make up the majority of the unemployed in all those countries for which data on skill levels are available. However, this does not mean that skilled workers face a higher risk of getting unemployed, but reflects the skill structure of the labour force. Unemployment rates are, indeed, much larger for unskilled than for skilled workers. For instance, in Hungary, the unemployment rate in February 1991 was 2.6 per cent for skilled workers compared to 9.9 per cent for unskilled workers¹¹.

30. Other characteristics of the unemployed tend to be shared, although with varying intensity, by all Central and Eastern European countries. In particular, most of the unemployed are of prime working age¹² and have only received education at the primary or vocational training level. As well as in absolute numbers, the incidence of unemployment is also probably higher for less educated people. In Poland, for example, it is estimated that, for June 1991, the rates of unemployment for persons with primary vocational training and other level of education were, respectively, 8.8 and 8.0 per cent compared to 3.2 and 4.6 per cent for persons with, respectively, higher and secondary levels of education.

31. The severity of unemployment also depends on the length of unemployment spells but, unfortunately, only limited information is available on duration. Nevertheless, there is some indication that the rise in unemployment rates experienced by all Central and Eastern European countries is the by-product not only of larger inflows into unemployment, but also of longer spells of joblessness. In Hungary, for example, from February to December 1990, the average length of time a person has been receiving unemployment compensation rose from 3.3 to 5.1 months (Hars et al., 1991). However, based on the information available, it is not possible to establish whether this reflects the appearance of a small pool of relatively long-term unemployed or an increase in the duration for the majority of people registered at labour offices.

32. One final feature of the current unemployment situation in Central and Eastern Europe which needs to be stressed is the wide variation in unemployment rates across regions. In Poland, unemployment rates for June 1991 ranged from around 3 per cent in the Warsaw region to over 14 per cent in the Suwalki region compared with a national average of just under 9 per cent. Similarly, in Hungary where the national unemployment rate was just over 6 per cent in September 1991, the rate was also very low for the capital (Budapest) at 1.8 per cent but was at or above 12 per cent in some of the North Eastern regions. These large regional differences reflect the strong geographical concentration of some of the sectors that are beginning to experience large job losses as industrial restructuring proceeds (for example, in Poland, the coal mines and iron and steel industries in Katowice, the textile industry in Lodz, etc.), the backwardness of some rural regions that are suffering from the collapse of trade with the Soviet Union¹³ and a lack of housing and retraining facilities which are hindering labour mobility. In this context, specific problems of local labour markets are emerging which will have to be addressed promptly via a combination of regional development and active labour market policies.

IV. CONCLUSION

33. The transition to a market economy involves a difficult learning process for policy-makers in Central and Eastern Europe which needs to compress into as short a time as possible a vast array of institutional changes. Political priorities have also to be revised in the course of this process. The

importance of labour market policies has been somewhat overshadowed at the earlier stages of the transition when the focus was on the design of stabilisation policies and on the development of appropriate strategies for privatisation. With unemployment rates rapidly increasing, and already well above double digit levels in some regions still not fully affected by economic restructuring, it is no longer possible to postpone measures to combat dis-employment. Yet, these measures have to be defined consistently with the objectives and scope of more wide-ranging reforms of labour market which will lead to the better realisation of the human resources potentially available.

34. As has been widely recognised in OECD countries, increasing labour market flexibility in the face of external shocks and efficiently using the available stock of human capital both lead to a greater potential for growth in the economy. The main challenge facing Central and Eastern Europe during the transition to market-based economies is to introduce a new dynamism into labour markets which had become atrophied under the former system of central planning. Active labour market policies will be required which encourage greater labour mobility and responsiveness to changing economic conditions.

35. With unemployment now openly recognised and rising rapidly, these measures will be essential for preventing a permanent rise in the number of long-term unemployed as has occurred in many OECD countries and which has proved so difficult to eradicate. At the same time, appropriate systems of income support will be required to alleviate the hardship facing the unemployed. Finding the appropriate balance between these income support measures and more active labour market policies will be a difficult task and one that has not been easy for policy makers in OECD countries. Identifying the specific problems facing each country's labour market and, in particular, those groups which are most vulnerable to unemployment will be important factors in developing appropriate labour market policies.

36. As labour market are getting increasingly complex, and the private sector is rapidly expanding, effective measures to reduce the social costs associated to the transition process will also need to be based on a timely and systematic monitoring, particularly of the displacement of workers in declining sectors, increasing unemployment and job search and the creation of new jobs in the growing private sector. Data currently provided by national statistical offices in Central and Eastern Europe are largely insufficient to provide information on these issues. A reform of statistical systems to monitor labour market developments is therefore warranted.

37. In the case of statistics on the unemployed, the refinement of administrative data collection would not only help to reduce the future costs of monitoring labour market developments, but it would also be indispensable for obtaining valuable information on the dynamics of unemployment. Labour force surveys will, at best, start being implemented on a regular basis at the end of 1992 (Hungary), if not in 1993 (Poland and the Czechoslovakia). Hence, registration data of job seekers collected by labour offices are likely to remain for many months to come the only source of information on the unemployed. However, the registration of job seekers and unemployment benefit claimants is today inefficiently used for statistical purposes. Registration forms often differ across labour offices within the same country (for example, in Poland and Hungary) and generally contain little information on personal characteristics of the unemployed. Even more critical is the fact that

de-registration procedures are not well defined, and so accurate information cannot be obtained on unemployment duration nor on the nature of outflows from unemployment. This may explain why only in a few countries data are published on the duration of unemployment, and why, even in this case, such data are confined to recipients of unemployment benefits rather than to all registered unemployed.

38. Therefore, there is a need to enhance multilateral co-operation and co-ordination, especially of bilateral initiatives, in the field of technical assistance projects relating to labour market statistics. In particular, administrative data on the unemployed and the statistical use of social security registers have, so far, been neglected as areas for international co-operation and assistance.

NOTES

1. The flat or upward trend in overall death rates has been ascribed to an increase in age-specific death rates of the working-age population associated with a higher incidence of cardiovascular and malignant disease (Meslé, 1991).
2. There are reasons to believe that the actual number of industry-type jobs may be somewhat overstated and consequently service sector jobs are understated. As mentioned already, industry in Central and Eastern Europe is almost entirely organised around large state-run enterprises which carry out many service-type activities. However, Nesporová (1990) has estimated that, for Czechoslovakia, using a classification by type of job rather than by industry does not change fundamentally the conclusion that service sector jobs are under-represented in the economies of Central and Eastern Europe compared with the West.
3. Buletin de Informare Publica, Comisia Nationala Pentru Statistica, No. 11, Bucharest, 1990.
4. For estimates of the short-run and long-run elasticities of employment to output in the OECD area, see OECD (1989).
5. In a recent article, Rotemberg and Summers (1990) show that labour productivity is more pro-cyclical (the elasticity of employment with respect to changes in output is lower) in those industries and countries where labour hoarding --proxied by data on yearly separation rates-- is larger.
6. Cost considerations may be an important factor affecting the way firms dismiss workers. In some countries such as, for example, Poland, regulations concerning group layoffs compel firms not only to give notice well in advance of planned layoffs, but also to provide rather generous severance payments.
7. For instance, the explosion in the number of small firms registered in Hungary might be partly explained by the fact that small units, unlike large firms, are not subject to tax-based income policies. A recent analysis of the Hungarian Central Statistical Office (quoted in Lado, Szalai and Sziracki, 1991) seems to indicate that the breaking up of large enterprises has been an important factor in the rapid increase of the population of small business activities.
8. A recent survey of the Hungarian Central Statistical Office found that part-time work is quite significant in small-scale industrial activities, whereas it is negligible in the state sector which is dominated by large companies. See KSH (1991).
9. According to the Law 105 of 1990. It should be stressed that such data do not take business failures into account and, hence, they cannot be used to make inferences about employment growth in the private sector.

NOTES

10. "Economy of Romania in June 1991", *Buletin Statistic de Informare Publică*, No. 6/1991, Al Comisiei Nationale pentru Statistică, Bucharest, 1991.
11. Data provided by the Hungarian National Labour Market Centre.
12. With the partial exception of Bulgaria where, however, the lowest age group is below 30, rather than 25, as in the other countries.
13. See Oleksyn (1991) for an analysis of unemployment in the agricultural areas of the north-east of Poland.

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Table 1. Demographic trends

	Bulgaria	Czecho- slovakia	Hungary	Poland	Romania	OECD Europe ^a	Total OECD ^a
Population ('000s)							
1970	8490	14334	10337	32526	20253	333775	715113
1990	8991	15662	10365	38119	23207	358265	831826
(% change p.a.)	(0.3)	(0.4)	(0.0)	(0.8)	(0.7)	(0.4)	(0.8)
Crude birth rate (x1000)							
1970	16.3	15.9	14.7	16.6	21.1	16.2	18.3
1990	11.7	13.3 ^b	12.1	14.3	13.6	11.9	14.3
Crude death rate (x1000)							
1970	9.1	11.6	11.6	8.1	9.5	10.6	9.7
1990	12.1	11.6 ^b	14.1	10.2	10.6	9.8	8.7
Infant mortality rate ^c							
1970	27.3	22.1	35.9	33.4	49.4	17.1	20.2
1989	14.8	11.3 ^b	14.8	15.9	26.9	8.4	8.1
Life expectancy at birth							
Females							
1970	73.9	72.9	72.6	73.8	70.9	74.9 ^d	74.2 ^d
1988/90	74.7	75.4	73.8	75.5	72.7	79.1 ^d	78.5 ^d
Males							
1970	68.6	66.2	66.8	66.8	66.3	68.6 ^d	67.6 ^d
1988/90	68.3	67.8	65.4	66.8	66.6	72.5 ^d	72.1 ^d

a) OECD Europe excludes Turkey. The latest estimates for the averages of the OECD countries refer to 1989.

b) 1989.

c) Deaths of infants less than 12 months old per 1000 live births.

d) A weighted average using population shares.

Sources: For the Central and Eastern European countries: various editions of the *Statistical Yearbook of the Council for Mutual Economic Assistance (CMEA)*; national statistical yearbooks and bulletins. For the OECD countries: *Labour Force Statistics 1969-89*, OECD, Paris, 1991; and *Health OECD: Facts and Trends*, OECD, Paris, forthcoming.

Table 2. Labour force participation rates^a

	Bulgaria				Czechoslovakia				Hungary			
	1956	1965	1975	1985	1961	1970	1980	1988	1960	1970	1980	1989
Men	98	86	81	81	89	83	87	82	98	87	84	75
Women	71	68	72	74	59	65	75	77	50	58	63	62
Persons	84	77	76	77	74	74	81	80	73	72	73	69

	Poland				Romania				OECD			
	1960	1970	1978	1988	1956 ^b	1966	1977	1989	1960	1970	1980	1989
Men	93	88	86	83	100	92	85	83	94	89	85	83
Women	66	72	70	68	78	73	70	68	46	47	53	59
Persons	79	80	78	75	89	82	77	75	69	68	69	71

a) The participation rate has been defined as the total labour force as a per cent of the population aged 15-64. For the Central and Eastern European countries, participation rates have been derived, principally, from census data. For some countries, adjustments have been made to the original source data and a number of supplementary sources have been used to derive estimates for the latest year shown.

b) Total labour force as a per cent of the population aged 14-64.

Sources: For Central and Eastern Europe, *Year Book of Labour Statistics, Retrospective Edition on Population Censuses, 1945-89*, ILO, Geneva, 1990 and national statistical yearbooks. For the OECD countries, *OECD Labour Force Statistics*.

Table 3. Average monthly wages and salaries

	Bulgaria ^a			Czechoslovakia		Hungary		Poland		
	1980	1989	1990	1980	1989	1980	1989	1980	1989	1990
All sector average (in local currency)	182	274	350	2637	3123	3892	10018	6040	206758	1030
of which as a percent:										
- Agriculture	90	98	103	98	104	92	90	98	98	93
- Industry	105	106	99	103	105	102	107	108	114	106
- Construction	115	111	111	110	111	109	116	112	97	100
- Wholesale & retail trade	89	85	87	85	84	88	93	82	85	84
- Transport & communication	111	106	108	111	108	107	99	106	91	93
- Finance, insurance, etc.	96	103	102	112	111	103	96	84	102	101
- Community, social, etc.	96	89	95	91	90			86	90	99
- Public administration	118	108	112	101	100			95	110	135
Coefficients of variation (%)										
For breakdown by sector as above	10.7	8.9	8.1	9.3	9.4	7.5	8.6	11.5	9.4	14.2
- weighted by employment shares	8.8	8.4	6.0	8.3	9.0	6.0	7.2	10.9	11.1	8.7
For detailed breakdown by sector ^b										
- weighted by employment shares	11.1	10.8	9.2	15.0	14.2	8.9	9.6	13.5	12.9	13.3
	9.4	9.6	6.8	11.2	11.3	6.3	9.3	11.9	11.9	9.8
Year	Romania			Netherlands ^a		Sweden ^c		United States ^{a,d}		
	1980	1989	1990	1980	1989	1980	1989	1980	1987	
All sector average (in local currency)	2238	3063	3384	3942	4761	5.1	10.0	1570	2276	
of which as a percent:										
- Agriculture	96	96	105	74	78	93	91	52	50	
- Industry	103	99	98	99	106	99	104	120	120	
- Construction	111	121	115	94	97	100	112	117	109	
- Wholesale & retail trade	83	86	86	83	85	90	100	79	75	
- Transport & communication	100	103	109	110	109	90	89	138	129	
- Finance, insurance, etc.	95	98	97	112	119	109	113	99	110	
- Community, social, etc.				83	81	86	81	76	81	
- Public administration		122	119	131	116	110	98	106	112	
Coefficients of variation (%)										
For breakdown by sector as above	8.8	12.7	11.2	17.5	15.1	8.8	10.5	26.1	25.2	
- weighted by employment shares	6.9	7.8	6.9	16.9	14.3	8.2	7.9	19.9	20.0	
For detailed breakdown by sector ^b										
- weighted by employment shares	10.3	10.8	10.9	17.2	18.5	17.0	18.4	29.9	30.6	
	8.1	8.1	7.6	17.9	15.4	11.2	11.2	23.1	23.7	

a) Calculated from average annual wages and salaries.

b) Number of sectors: 16 for Bulgaria; 30 for Czechoslovakia; 10 for Hungary; 17 for Poland; 13 for Romania; and 24 for the Netherlands, Sweden and the United States.

c) Average hourly earnings.

d) Excluding public enterprises.

Sources: Data for Central and Eastern Europe comes from national statistical yearbooks or was directly provided by national statistical offices. For the OECD countries, all data comes from National Accounts 1977-1989, vol. II, OECD, Paris, 1991.

**Table 4. Output, employment and productivity developments
(percentage changes)**

	Whole Economy											
	Output ^a				Employment				Productivity			
	1989	1990			1989	1990			1989	1990		
Bulgaria	-0.3	-11.5			-2.3	-6.3			2.0	-5.5		
Czechoslovakia	1.3	-3.1			0.3	-0.4			1.0	-2.7		
Hungary	-0.2	-5.0			-0.9	-2.0			0.7	-3.1		
Poland	-0.2	-13.0			0.6	-3.7			-0.8	-9.7		
Romania	-5.8	-7.3			1.3	1.5			-7.0	-8.7		

	Industry ^b											
	Output				Employment				Productivity			
	1989	1990	91Q1	91Q2	1989	1990	91Q1	91Q2	1989	1990	91Q1	91Q2
Bulgaria	-1.1	-16.7	-22.0	-32.9	-3.4	-7.8	-13.6	-16.7	2.4	-9.7	-9.7	-19.4
Czechoslovakia	1.1	-3.7	-10.5	-22.5	0.2	-2.8	-8.1	-11.2	0.9	-0.9	-2.6	-12.7
Hungary	-1.0	-5.0	-12.1	-20.8	-2.1	-2.7	-10.3	-12.0	1.1	-2.4	-2.0	-10.0
Poland	-0.5	-24.2	-5.9	-13.2	0.0	-5.8	-7.8	-7.1	-0.5	-19.5	2.1	-6.5
Romania	-2.1	-14.3	-16.1	-17.2	2.6	0.8	-7.5	-10.6	-4.6	-15.0	-9.3	-7.4

a) Output for the whole economy refers to Net Material Product for Bulgaria and Czechoslovakia and Gross Domestic Product for Hungary, Poland and Romania.

b) The quarterly data refer to percentage changes over the year to the quarter and are not strictly comparable with the annual data.

Sources: OECD Economic Outlook, No. 50, December 1991 and national statistical yearbooks.

Table 5. Employment Losses in 1990^a

	Bulgaria		Czechoslovakia ^b		Hungary ^c		Poland ^d	
	Change from previous year % ('000s)		Change from previous year % ('000s)		Change from previous year % ('000s)		Change from previous year % ('000s)	
Agriculture	-7.3	-59.3	-0.9	-8.0	-13.0	-124.0	-2.4	-112.6
Industry	-7.8	-128.0	-2.8	-83.0	-1.8	-29.0	-5.8	-283.7
Construction	-8.8	-31.8	4.3	30.0	-2.2	-7.7	-5.8	-76.3
Services	-3.5	-54.2	1.0	32.0	-0.8	-20.5	-2.5	-155.9
- Transport	-3.7	-9.2	4.1	21.0	0.2	1.0	-6.0	-48.8
- Communications	3.9	1.7					1.4	2.3
- Wholesale & retail trade	-6.8	-27.0	-3.6	-30.0	4.5	27.8	-4.8	-70.2
- Community services, etc.	-4.3	-4.2	2.9	18.0	-9.8	-27.4	-2.4	-15.5
- Research & development	-10.7	-10.4					-12.9	-14.5
- Education	0.7	1.8	2.8	13.0	-2.1	-17.2	2.1	22.9
- Culture & art	-2.4	-1.1	0.4	2.0			-4.0	-5.0
- Health, sport, tourism	1.5	3.3					0.9	9.5
- Finance & insurance	-3.1	-0.8					5.2	8.9
- Public administration	-7.9	-4.8	14.6	28.0			-0.4	-1.0
- Other	-8.5	-3.5					-10.7	-44.5
Total	-6.3	-273.3	-0.4	-30.0	-3.3	-180.9	-3.7	-628.5
Public Sector	-7.3	-280.5	-2.6	-173.5	-7.4	-289.3	-9.3	-1126.7
Private Sector	2.1	5.1	n.a.	n.a.	20.4	154.1	9.8	498.2

a) Data for all countries represents the average for the year 1990 compared to 1989 except for Hungary where it refers to the beginning of each year. For some countries, there are differences in the definitions used for employment by industry and for employment by sector.

b) Includes secondary jobs.

c) Employed pensioners and persons on child-care leave are included in the breakdown by industry but but are excluded from the public/private sector breakdown.

d) Full-time equivalents.

Sources: All data provided directly by central statistical offices.

Table 6. Open Unemployment in Central and Eastern Europe

	Registered unemployed (thousands)				
	January 1990	June 1990	January 1991	June 1991	October 1991
Bulgaria	n.a.	22	74	248	360
Czechoslovakia	n.a.	13	119	301	474
Hungary	23	42	101	186	317
Poland	56	568	1196	1574	2040
Romania	n.a.	n.a.	n.a.	104	184
Total	79	645	1490	2413	3375

Sources: Provided directly by national statistical offices.

Chart 1. Growth of the working age population and old age dependency ratio a)
 (Left hand scale: population, 1960=100,
 Right hand scale: dependency ratio in per cent)

a. The old age dependency ratio is defined as the population aged 65 and over divided by the population aged 15-64.
 b. Excluding Turkey.

Sources: The sex and age distributions of population, the 1990 revision of the United Nations global population estimates and projections, 1991.

Chart 2. Employment by sector
(as a percent of total)

Source: For Central and Eastern Europe, national statistical yearbooks. The OECD total is taken from Labour Force Statistics 1969-1989, OECD, Paris, 1991.

Chart 3. Distribution of employees in industry by enterprise and establishment size in Central and Eastern Europe and OECD countries ^{a)}

a. Industry generally refers to the mining, manufacturing and electricity, gas and water sectors. For the Netherlands, only the manufacturing sector is included and, for Sweden and the United States, the electricity, gas and water sector is excluded. The reference year is 1989 for Czechoslovakia, Hungary, Poland and Romania; 1988 for Bulgaria, France, the Netherlands and Sweden; 1987 for Germany and Italy; and 1986 for the United States.

b. The category of 101-500 employees also includes the category of 0-100 employees.

c. The category of 0-100 employees refers to 0-200 employees and the category of 101-500 employees refers to 201-500 employees.

d. The establishment sizes are 20-100, 101-500 and 501+ employees.

Sources : National statistical yearbooks for the Central and Eastern European countries, Germany (establishment data), the Netherlands, Sweden and the United States; The Structure and Activity of Industry, Data by size of enterprises -1985, 1986, 1987 - EUROSTAT, 1990, for Italy and Germany; and La Situation de l'Industrie en 1988, French Ministry of Industry, 1989, for France.

**Chart 4. Registered unemployed
as a percent of the labour force**

Sources: National statistical offices for data on registered unemployed.
Monthly labour force data have been estimated from official yearly data.

Chart 5. Characteristics of Unemployment
in Eastern and Central European Countries
(as percent of total unemployment)

Notes: School leavers include other new entrants. Bulgaria: All data provided by Ministry of Labour and Social Affairs, Sophia and are for July 1991. Gender and education figures include only displaced workers. Age groups refer to the following categories: young: up to 29, prime working age: 30 to 50, older: 50+. CSFR: All data provided by Ministry of labour, Prague and are for June 1991. Age groups refer to: up to 19, 25 to 49 and 50+ respectively. Hungary: All data provided by Central Statistical Office except education by National Labour Market Centre and are for June 1991. Age groups are as follows: up to 25, 26 to 55 and 56+ respectively. Poland: All data provided by the Central Statistical Office and are for June 1991. Age groups are as follows: up to 24, 25 to 44 and 46+ respectively. Romania: All data provided by the Ministry of Labour and are for June 1991 except skill level and education breakdowns which have been provided by the National Commission for Statistics (NCS) and age which is a calculation based on statistics provided by the NCS. Age groups are as for Poland.