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**Elena Jarocińska**

**Labour Developments in Moldova**

*W a r s a w , 2 0 0 0*

Materials published here have a working paper character. They can be subject to further publication. The views and opinions expressed here reflect Authors' point of view and not necessarily those of CASE.

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## **Abstract**

The paper studies labour developments in Moldova during transition period. The questions addressed are the size and character of labour market adjustment. Established data sources have been complemented by the results of available surveys to get more precise estimates of the effective employment. Wage data was adjusted for the stock of arrears.

We conclude that adjustment to the new market order in Moldova has been done through prices, which is similar to other FSU countries. Real wages, if adjusted for arrears, amount to only 14% of the pre-transition level. On the other hand, only small labour shedding is observed. Registered unemployment rate is one of the lowest in the FSU and CEE countries. Such way of adjustment has a number of negative consequences, the most important being the phenomenon of unpaid leaves. It appears, that only formal affiliation with enterprise remains, leaving those people effectively unemployed. Survey evidence report double-digit open unemployment rates, with widespread under-employment. With no system of unemployment benefits in place, a substantial number of labour force is involved in survival informal activities.

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## **I. Introduction**

Moldova undergoes the period of transition from an old centralised order to a market economy. It has been widely argued that the inherited system was systematically dysfunctional relative to the needs of a new economic reality [1]. Of the many effects of transition, the crucial one for labour developments was a global decline in output, and hence falling demand for labour.

Two patterns of labour market adjustment have been observed. Most of the CEE countries have seen adjustment through quantities. Employment reductions were done on a large scale in Poland, Hungary, and Slovakia. It resulted in high and persistent unemployment rates, with low flows in and out of the unemployment pool, and in particular low flows from unemployment to jobs [2].

A different pattern was observed in the FSU, where the burden of adjustment fell on wages rather than employment (adjustment through prices). Such factors as lack of job opportunities, limited mobility and new skill requirements guaranteed wage flexibility. Relatively less labour shedding was observed. Correspondingly, unemployment was low, with large turnover in unemployment pool.

In explaining why different patterns were observed two main reasons stand: differences in benefits regimes and differences in budget constraints of enterprises. It turns out that in countries with generous unemployment insurance systems and hard budget constraints labour markets adjust through quantities. On the opposite, poor benefit schemes coupled with subsidising employment lead to adjustment through prices.

Transition countries have also inherited inefficient economic structures, with dominant industry and agriculture, on one hand, and underdeveloped services, on the other. Private sector was almost inexistent. Thus, labour market adjustment also entails labour reallocation across and within sectors, and employment flows from public to private sector. Reallocation across and within sectors relates to job creation and job destruction in order to insure efficiency gains. Growth of the private sector employment is important as the core of a market economy.

The paper is dealing with the labour developments in Moldova during transition period. The questions addressed here are the size and character of labour market adjustment.

It has been argued that Moldavian enterprises failed to undertake the task of adjustment [Radziwill, 1999]. Instead of cost-reduction and restructuring, enterprises

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[1] See, for example, Barr (1999).

[2] For a more detailed discussion see [Commander and Tolstopiatenko, 1997].

adopted the strategy of state aid seeking. Only insignificant changes in employment have been observed. However, relying only on official data sources does not allow capturing the actual developments on the labour side [3]. Firstly, official data underreports the small business sector and informal activities. Secondly, and maybe most important, it does not account for hindered unemployment and under-employment.

In the paper established data sources (referred to as "Official" below) have been accomplished with the results of the Household Budget Survey (HBS) and Labour Force Survey (LFS) (referred to as "Surveys") [4] to get more precise estimates of effective employment. Wage data was adjusted for the stock of arrears.

The paper is organised as follows. First section analyses employment dynamics in Moldova, underlining the unpaid leaves phenomenon as a form of adjustment. Second section studies developments in agriculture, the dominant employment sector in Moldova. In the third section we estimate unemployment, under-employment and population out of the labour force. Forth section gives an account of wage developments. The last section concludes.

## **2. Employment (Quantity) Adjustment**

Moldova has seen one of the most drastic output decline in the former Soviet Union. Real GDP decline amounted to about 70% since independence, according to IMF estimates [IMF, 1999]. Adjustments on the labour side were necessary to keep up with productivity gains. They were also needed as a result of earlier strategy of labour hoarding under the central planning regime.

### **2.1. Employment Dynamics**

Official data sources suggest that labour reduction has been done on a small scale. Employment has shrunk some 10% since 1991 [5]. It can be seen from Figure 1 that

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[3] Problems with reliance on official data in transition countries were raised by many economists.

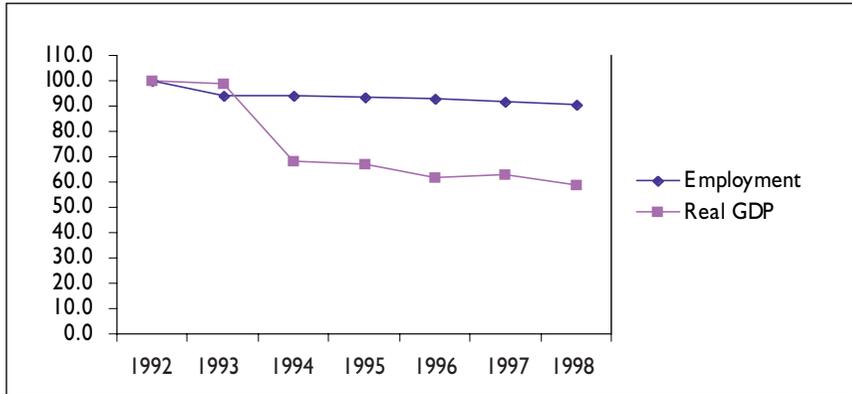
[4] Moldovan Household Budget Survey has been started in April 1997, with the pilot study done in February, 1997. Apart from data on households' budgets, it gives representative information on employment and unemployment. The number of adult respondents (aged 16 and over) exceeds 3600.

First results of the Labour Force Survey has come out only recently for the fourth quarter of 1998. Data for 1999 is still under processing. This is a very detailed survey, with 8208 households being observed.

[5] Data on GDP and employment here and below in the article excludes Transnistria region, due to unavailability.

employment shows a far slower decline than the GDP, with the gap being substantially increased since 1994. Very insignificant adjustment to output fall is observed.

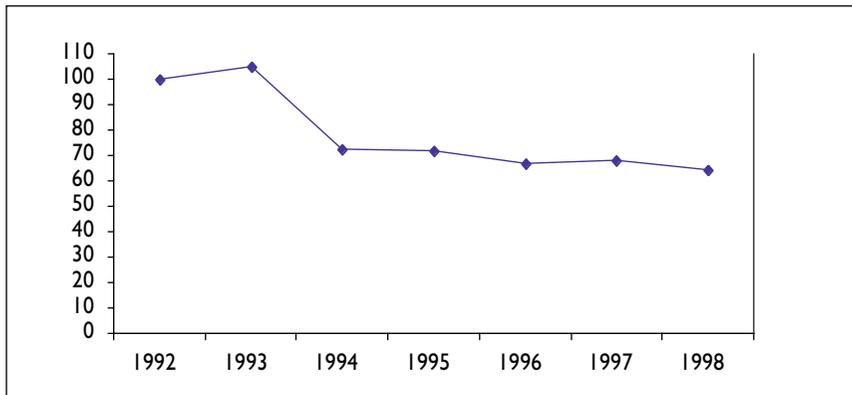
**Figure 1. Employment and Real GDP Dynamics, 1992–1998**



Source: Department of Statistical and Sociological Analysis and IMF

This is reflected in productivity losses (Figure 2). Real GDP per worker in 1998 amounted to only 65% of the 1992 level. Some small increase in productivity was observed in 1997, but it has been offset as a result of further decline in GDP.

**Figure 2. Real GDP per Worker, 1992–1998**



Source: Author's calculation

Relative dynamics of employment and GDP in Moldova are similar to other FSU countries (see Table 1). Since 1989 declines in GDP in this group have been huge but the adjustments to employment have been rather insignificant. FSU pattern stands in a bright contrast with CEE countries, where decline in aggregate employment has matched or exceeded the fall in GDP over the period.

**Table 1. Central and Eastern Europe and the Former Soviet Union: Evolution of GDP and Employment, 1989-1997**

	Cumulative change 1997/89 (%) in	
	GDP	Employment
CEE		
Bulgaria [a]	-37	-30
Hungary	-10	-28
Poland	12	-17
Romania	-18	-15
FSU		
Russian Federation	-42	-13
Ukraine	-63	-7
Azerbaijan	-60	1
Moldova	-65	-9

[a] Employment change for 1996/89

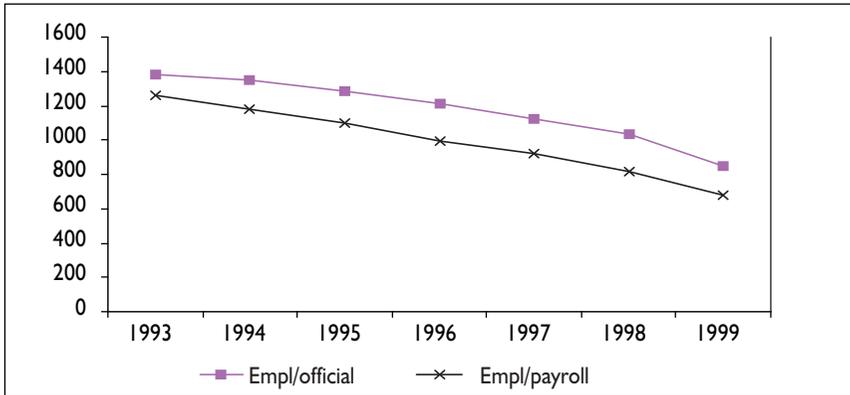
Source: EBRD, Transition Report, 1998 and ILO, Laborsta database

Available survey results suggest that actual employment level differs from 'official' estimates. According to the Labour Force Survey, employment in 1998 saw a 19% reduction since 1991. In the Household Budget Survey only 48% of adult respondents in 1998 answered in affirmative that they had jobs during last seven days. Adjusting for effective number of employed makes employment reduction of 29% since 1991. Such a big difference in survey estimates may be explained by variation in methodology and time period [6], but, maybe most important, it points to the existing measurement problem. In economy with a high share of informal sector and widespread survival businesses implying a big number of self-employed it is difficult to come up with precise estimates of employment.

[6] The Labour Force survey is specially designed for estimating labor indicators, however the data refers to the fourth quarter. The household budget survey provides with annual data, but the question about employment does not correspond to the formal definition of the employed. It does not account for whether a person gets an income for a job.

Data on employment on payroll give some insights on disparities between 'official' and survey data. As Figure 3 shows, there exists a substantial gap in level of employment and employed on payroll [7] with a tendency to increase over time. It is mostly driven by unpaid leaves, and by a small number of maternity and sick leaves.

**Figure 3. Employment Official and on Payroll, 1993–1999, (thousand)**



Source: Department of Statistics, own calculations

## 2.2. Phenomenon of Unpaid Leaves

Unpaid leaves (though forbidden by law) are very common in Moldova. Showing a stable pattern relative to employment level, unpaid leaves amounted to 11% of the employment in 1998. This is similar to Russia, where unpaid leaves stayed at 11.5% in 1998 [Denisova, 1998].

Employees remain at their enterprises, even if enterprises seize operations and/or employees get no salaries, because of benefits they might continue to receive. Firms have inherited from the Soviet times large-scale social infrastructure, including housing, child and health care. Usually, at an enterprise there is a canteen, kindergarten, and recreation facilities. Provision of medical services for employees is free of charge. In addition, most of social allocations are conditional on the attachment of an individual to a stable working place.

Facing lack of job opportunities and the danger of falling into unemployment, workers prefer to stay affiliated with their enterprises. The question remains whether those

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[7] Data on employment presented below only covers enterprises with 20 or more employees. Thus, it does not reflect the employment situation in the whole economy.

people passively wait for new opportunities at their enterprise, relying in the meantime on the family support and on some occasional sources of income or rather involved in some organised, often informal activities? HBS evidence suggests that majority of workers on unpaid leave did not have any job during last seven days. Unfortunately, it does not give a clear answer, as false reporting in case of informal activities is very likely due to obvious tax reasons.

Employers also favour labour hoarding in order to avoid social costs associated with firing together with financial costs of paying severance payments plus accumulated wage arrears. Labour hoarding also helps employers in aid-seeking bargaining with the state, with tradition going back to the times of planned economy. Companies get funds from the state given the registered number of employees.

Enterprises in Moldova have continued to provide benefits as they face soft budget constraints. This involves both explicit and implicit subsidies to firms, including through energy prices and local government finance. However, maybe most importantly, firms were permitted to generate massive payment arrears to the state budget, the Social fund, to utilities and other companies. Arrears accumulated by the state and collective farms amounted to 2 billion Lei or nearly twenty percent of GDP [IMF, 1999]. Firms also enjoyed lowered tax and social liabilities via netting out operations, which have been carried out on a massive scale in Moldova [8]. At the level of local budgets, netting out operations amounted to about 50% of total revenues from enterprise income tax and VAT. Social security contributions have been largely paid in kind.

Due to job attachment being only nominal, workers on unpaid leave cannot be considered employed in an ILO definition sense. In fact, this category is effectively unemployed. However, available data on unpaid leaves is inadequate to adjust employment data for the effective number of employed [9]. Payroll data can be a suitable proxy for unpaid leaves, as the number of maternity and sick leaves is relatively small.

As Figure 3 suggests, payroll employment shows a declining trend. Since 1993 payroll employment shrank some 46%. This, however, reflects not only incidence of macroeconomic recession, but also restructuring processes in the economy. The number of employed at medium- and large-scale enterprises declined due to a relative growth of small-scale enterprises. In 1999 only 5062 enterprises were covered by enterprises' survey of 20 and more employees, compare to 7474 at the end of 1993. Thus, actual employment decrease adjusted for the changes in the enterprises base amounts to some

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[8] For a detailed account of netting operations and fiscal barter see [IMF, Republic of Moldova: Recent Economic Developments, 1999].

[9] Data on unpaid leaves is cumulative. Thus it is impossible to determine the exact number of unpaid leaves at a given moment of time.

20% [10]. Given a shorter time period [11], the estimate of 20% decrease tends to underestimate changes in employment since 1991. Thus, actual employment decrease over the period of 1991–1998 is likely to be in between estimates of the Labour Force (19%) and Household Budget Surveys (29%).

To summarise the above, employment has seen a small decrease over the transition period in Moldova. Adjustment to large aggregate shocks has been done through the form of unpaid leaves. This explains the substantially lower employment level, which is reported by surveys. Preserving formal attachment of workers to enterprises has become possible due to the soft budget constraint enterprises continue to enjoy.

### **3. Employment Developments in Agriculture**

#### **3.1. Employment Dynamics**

We further disaggregate data to analyse employment developments in agriculture. With half of population living in rural areas and a dominant employment being in agriculture, it reflects to a large extent labour developments in the whole economy.

Using standard industrial classification, 43% of total employment in 1998 was in agriculture (agriculture, forestry and fishing). Another some 60% of employment in manufacturing was involved in agro-processing (Table 2).

**Table 2. Employment by Broad Sectors, 1998**

<b>Sectors</b>	<b>Percentage</b>
Agriculture	43.1
Industry, incl.:	11.2
Agro-processing	6.7
Construction	3.2
Services	42.5
Total, thousand	1625

Source: Department of Statistical and Sociological Analysis and author's calculations

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[10] This is given that average employment is the same across both bases.

[11] Data for employment on payroll of enterprises with 20 and more employees only exists since 1993.

However, it appears that actual labour involvement in agricultural activities is substantially higher. As Labour Force Survey suggests, more than one million workers, or some 71% of the employed were absorbed in agricultural activity. Among them almost one half are self-employed.

According to official estimates, level of employment in agriculture has remained almost unchanged over last eight years. The share of agriculture in total employment, however, has increased by 8% in 1998, if adjusted for the survey results. Thus, the rate of employment decline in agriculture was slower than the average in the economy.

Partly, this reflects the survival strategy chosen by Moldavians. Confronted with the collapse of regular employment, people in rural areas turn to small-scale farming. In fact, a peculiar role of the agricultural sector as an "employer of last resort" has been observed in transition countries like Romania and Bulgaria [Jackman and Pauna, 1997]. Having the greatest surplus of employment in agriculture before transition, they have experienced the smallest decline or even increase in agricultural employment (Table 3). However, this increase may also be driven by processes of land restitution. In Romania, one can observe a clear correlation between increases in employment in agriculture and the four main land reforms.

**Table 3. Agriculture Shares in Total Employment before and during Transition in CEE Countries, Russia and Moldova**

Country	Employment in Agriculture, % in Total	
	Before	During
Bulgaria	19	22
Hungary	17	8
Moldova	38	46
Poland	27	23
Romania	29	40
Russia	13	15

Source: For Moldova data is for 1991 and 1998 (Department of Statistical and Sociological Analysis and Labour Force Survey); other countries – 1988 and 1995 in [Comander and Tolstopiatenko, 1997]

### **3.2. Private Sector Development**

Observed employment developments in agriculture are closely related to changes in ownership structures.

At the time of independence in 1991 the agriculture sector comprised of nearly one thousand state and collective farms employing on average 1000 members. Farms ranged

from 200 to 4000 members in size, with most in the range of 800–1200 members. With price liberalisation and competition, energy intensive sector with inefficient structure became a loss-maker. By winter 1998, 50% of kolchozes and sovchozes went bankrupt, 40% were not profitable and only 10% made some revenues [12].

Breaking up of collective and state farms is done in the frame of National Land Program, which now encompasses nearly nine hundred of them [13]. Agriculture land and farm property is distributed among former members and other rural population, further providing them with legal status. Currently, almost 25% of total agricultural land is legally privately owned by 429 thousand farmers [14]. This is almost half of the population involved in agriculture activity. However, there are many more farmers with land shares to get a legal status. Process of registering goes slowly due to tax reasons, but also due to formalities it involves.

Progress in privatisation is reflected in the growing share of individual farmers and households in agricultural output. In 1998 it accounted to 61%, 10% points up since 1997 and 18% since 1995.

Evidence from the recent study of the private sector in agriculture [15] confirms that some positive developments are underway. Although the majority of respondents is planning to preserve the same level of activity in the future, more than a third of respondents is going to expand their activity, while only some 7% plan to stop the activity. Farmers start to join associations, thus concentrating land and property and increasing its efficiency. Amounts of credits to farmers also have increased recently with adoption of the Law on Mortgages in August 1998.

These developments could imply creation of productive job opportunities in agriculture. New productive jobs will compensate jobs destruction at inefficient kolkhozes and sovchozes. This is especially important given lack of new job creation in other sectors of economy.

However, there exist a number of factors that impede job creation, but what we consider the most important is emerged insufficient economies of scale. This entails small land concentration, lack of markets and associated infrastructure for inputs and crops, undeveloped credit markets, weak development of wholesale commodity for agricultural produce, illiquidity of agro-processing sector.

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[12] Data based on results of audit carried out by the Ministry of Finance and reported by Interlink Agency.

[13] A detailed analysis of Land Reform is done in [IMF, Republic of Moldova: Recent Economic Developments, 1999].

[14] Based on estimates of Department of Privatisation under the Ministry of Economy.

[15] Opinion poll "Impediments to Development of Private Farming and the Related Small Rural Businesses" of 530 respondents in 123 settlements all around Moldova, carried out by the Centre for Strategic Studies and Reforms (Moldova) and CARANA Corporation (USA), August-September, 1999.

Evidence suggests that individuals often harvest on initial shares of land of 1.5 hectares, with leasing of land only starting. Old inefficient equipment, lack of fertilisers and means of transportation are very common. Even with Saving and Credit Associations (SCAs) grown in share capital and in lending, total outstanding loans to farmers at present amount to less than one-tenth of one percent of GDP [IMF, 1999]. Activities of AgroindBank and FintorgBank are also limited. Farmers in order to avoid prevailing barter form of payment by agro-processors switch to production of consumption crops, such as corn or fresh vegetables and fruit, which can be sold in local markets.

As a result, most of individuals are involved in farming for self-consumption. Thus, a too slow process of labour division impedes creation of new jobs. With common family businesses, it appears that it mainly takes form of informal self-employment.

### **3.3. Employment in Informal Sectors**

In fact, there is evidence that a large part of new employment is not registered. To a great extent, it concerns agricultural sector. With changes in ownership structures and prevalence of small-scale activity, usually involving family members and relatives, it is not surprising that informal employment is common.

Differences in official and LFS estimates of agricultural employment may suggest that 208 thousand are employed informally. Another potential group for being involved in informal activities are workers on unpaid leaves – 112 thousand. Inactive population of working age (150 thousand) is also likely to contribute to such activities (see below). Adding up these groups, make employment estimate in informal sector equal to 30% of the labour force.

Informal activities are often closely related to survival strategies. This involves street and shuttle trade, informal taxi and rent services. Organised criminal activities are also resorted to.

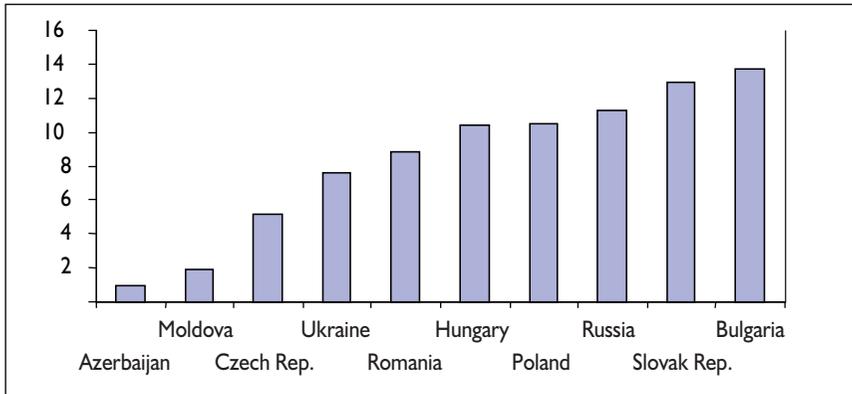
There is also evidence that earning migration abroad is a common phenomenon in Moldova. Although Moldovan official statistics reports only small figures, statistics of other countries is more informative. According to Russian and Ukraine Migration Service, in 1998 10762 Moldovans went to earn money to Russia, and 3936 to Ukraine. This data also under-reports real size of migration, as most of the jobs are informal. There are estimates of 100 thousand Moldovans working abroad. Offering cheap and good quality labour, Moldavians find jobs in construction, trade, etc.

## 4. Unemployment

### 4.1. Registered and Actual Unemployment Level

Moldova's registered unemployment rate of 2% ranks among the lowest in the FSU, Central and Eastern Europe countries (Figure 4).

**Figure 4. Registered Unemployment Rate in the FSU and CEE Countries (%), 1997**



Source: ILO Database

Official and Household Budget survey data offer similar estimates of registered unemployment, roughly 1% of the adult population in 1998. Existing studies have found that level of the registered unemployment to a great extent depends on the relative generosity and coverage of the unemployment schemes [16].

It appears that in Moldova unemployment benefits are poor and of low duration. Though unemployment benefits account to some 30% of the average wage, which is comparable to CEE countries (see Table 4), they are far from providing a minimum subsistence level [17]. Payment arrears are also widespread.

On the other hand, bureaucratic formalities coupled with legislation complexity lead to difficulties in obtaining unemployment benefits. As a result, only one out of four officially registered unemployed gets the benefit. This is the lowest percentage of

[16] See, for example [Commander and Tolstopiatenko, 1997]. Exercises with a model of transition, proposed by the author's, indicated that benefits generosity does exert a powerful influence on both the size and persistence of unemployment peak.

[17] In 1998 unemployment benefits amount to 80 Lei (\$US 15), or only 17% of the minimum consumption basket [MET, January, 2000].

**Table 4. Unemployment Insurance System, in CEE Countries, Russia and Moldova**

	Moldova	Bulgaria	Czech Rep.	Hungary	Poland	Romania	Russia
Duration (months)	9	12	6	12	12	9	12
Min. employ. record (months)	6	6	12	360 Days	180 Days	6	3
Av. UB as % of the av. Wage	31.7	34.9	25.1	33.5	36	28.5	8.8
% of reg.u unemployed receiving benefits	25	31.2	45.8	36	53.3	33.5	77.1

Sources: For CEE countries and Russia data is for 1995 in [Commander and Tolstopiatenko, 1997]; for Moldova data is for 1998 based on MET and Law on Employment

registered unemployed receiving benefits across CEE countries and Russia (see Table 4).

Thus, costs of being registered as unemployed outweigh the benefits. This suggests an explanation to unrealistically low level of registered unemployment in Moldova.

Adjusting the registered unemployment rate with those effectively unemployed on unpaid leaves, roughly 112 thousand on average in 1998 [18], raises unemployment based on official data to 5% of the adult population for an unemployment rate estimated at 9%.

Survey results are more comprehensive in revealing effective unemployed. According to Household Budget Survey, on average 280 thousand workers declared themselves without a job in 1998. This is almost twice the level of unpaid leaves and registered unemployment. Thus, unemployment is pushed to 10.5% of adult population, with unemployment rate of 17.9%. Though these estimates are not conventional in an ILO definition sense (as they include also those who do not seek a job), they rather capture the actual unemployment level. In fact, unemployed who are actively engaged in seeking a job represent only a small part of those without a job, namely 4% of adult population (Table 5).

**Table 5. The Unemployed Out of the Adult Population by Job Status and by Area, in Percentage, 1998, 1Q and 2Q of 1999**

	% , Annual, 1998			% , 1Q, 1999			% , 2Q, 1999		
	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
On leave	3.3	3.9	3.7	2.4	4.3	3.5	2.4	2.8	2.6
Enterprise did not operate	1.8	3.3	2.8	2.3	7.1	5.2	1.2	1.6	1.4
Seek a job	7.9	1.4	4	7.3	1.4	3.7	5.8	1	2.8
Total	13.0	8.6	10.5	12	12.8	12.4	9.4	5.4	6.8

Source: Household Budget Survey

[18] Formally speaking, one cannot take averages of cumulative data.

Passive behaviour of unemployed may be explained by limited job opportunities in Moldavian economy, because the fall in GDP was very severe. Another explanation relates to undeveloped state of labour markets in Moldova. As noted by the ILO, in a environment, where the conventional means of seeking work are of limited relevance, where the labour market is largely unorganised and where the labour force is largely self-employed, the criterion of seeking work becomes irrelevant, and may be relaxed [19].

Interestingly, estimates of the Labour Force Survey, that has become recently available, suggest similar unemployment rate of 17.1%, if the above criterion is relaxed. This fact improves reliance of both surveys estimates substantially.

For a international comparison, we use the conventional unemployment rate of 12.8% in 1998 from the LFS. When placed in a regional context (Table 6), Moldova is situated at the upper end of open unemployment rates in CEE and FSU countries.

**Table 6. Unemployment Rates Based on the Labour Force Surveys, CEE and FSU Countries, 1997**

<b>Country</b>	<b>Unemployment rate, %</b>
Bulgaria	14.4
Moldova	12.8
Russia	11.8
Slovak Rep.	11.6
Poland	11.2
Ukraine	8.9
Hungary	8.7
Romania	6
Czech Rep.	4.7

Sources: ILO Database; data for Moldova based on Labour Force Survey, IV Quarter, 1998

Most of unemployment is clearly of cyclical nature, i.e. caused by falling output [20]. It is almost twice higher in urban areas than in rural areas, as data of both surveys suggest. However, in rural areas it has a strong seasonal character. As HBS suggests, first quarter of 1999 has seen unemployment of 12.8% of rural adult population, while

[19] See <http://laborsta.ilo.org>.

[20] Classification of unemployment varies according to it's causes: cyclical unemployment is caused by falling output; seasonal unemployment is caused by shifts in the supply and demand for labour (typically in agriculture, construction) during the calendar year; structural unemployment emerges by a mismatch of skills or geographic locations. Frictional and disguised unemployment are also distinguished.

in the second quarter it was 5.4% (Table 5). Unemployed agricultural workers reported in the first quarter that in most cases their enterprises were not operating, or they were sent on leaves.

## **4.2. Under-Employment**

Along with open unemployment, under-employment is another indicator of labour utilisation. Hours worked is usually used to measure the extent of under-employment. According to Household Budget Survey, in 1998 almost 10 percent of the employed worked less than 20 hours last week and about 30 percent worked from 20 to 40 hours (Table 7). That is on average 40 percent of employees were not on full-time employment. Such a high level of under-employment in Moldova is driven in the first hand by the situation in rural areas. There 47.5% of employed reported to work fewer than 40 hours a week, although in the cities it is also high – 28% correspondingly.

**Table 7. Under-Employment. Weekly Hours Worked, Total, Urban and Rural, 1998**

<b>Hours Worked</b>	<b>Total</b>		<b>Urban</b>		<b>Rural</b>	
	<b>Nr.</b>	<b>%</b>	<b>Nr.</b>	<b>%</b>	<b>Nr.</b>	<b>%</b>
< 20	609	8.7	140	5.0	469	11.2
20-29	932	13.2	232	8.1	700	16.7
30-39	1245	17.7	425	14.9	820	19.6
40-49	3176	45.1	1438	50.5	1738	41.5
>50	1077	15.3	612	21.5	465	11
<b>Total</b>	<b>7039</b>	<b>100</b>	<b>2847</b>	<b>100</b>	<b>4192</b>	<b>100</b>

Source: Household Budget Survey

Observed under-employment is to a great extent involuntary, especially in rural areas. Double-digit rates of hidden unemployment coupled with widespread low-working hours represent other forms of labour adjustment to aggregate shocks. It reflects lack of employment opportunities in Moldova resulted from poor state of the economy. Another negative outcome of the shrinking demand for labour is the growing size of population out of the labour force.

### **4.3. Out of the Labour Force**

Apart workers who stop participating in the labour force due to age, health and family reasons, there are also those who have given up trying to find work or not currently available for work.

According to official figures, in 1998 39% of adult population was out off the labour force, HBS estimate it even higher – at 44.1%. For both men and women the dominant explanation why they are out of the labour force is age. However, a large group of 30% comprises of people in the working age, who are either discouraged in further seeking or are not currently available for taking a new job [21].

Relative size of the labour force and the remaining population of working age is measured by participation rate. Changes in participation rate can significantly influence rate of unemployment.

As official data suggest, Moldova has high participation rate of 79.8% compared to other OECD economies [22]. However, this rather reflects relatively small number of working population in the country due to low official retirement age coupled with distribution of population skewed to old ages [23]. Participation rate indicator measured as a percentage of the adult population is more comprehensive. It stands at only 56% of adult population (estimate of the HBS) due to low participation of older workers and a big number of discouraged workers. This results in a heavy burden on those who are employed [24].

## **5. Wages (Prices) Adjustment**

It was assumed that a critical channel for restructuring would be the play-back from unemployment on a wage behaviour. However, the evidence of the effect of unemployment on wages has been mixed [25]. While some negative impact of unemployment on wages has been observed in Hungary, the Czech Republic and Poland,

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[21] 87 thousand discouraged workers were included in calculation of the broad unemployment rate. Data comes from LFS.

[22] OECD-CCET Labour Market Database [Lindauer, 1998 and Alison and Ringold, 1996].

[23] 22% of Moldova's adult population is in retirement age.

[24] In Moldova on average every 100 workers support themselves plus another 167 people [Lindauer, 1998].

[25] See Commander and Tolstopiatenko (1997).

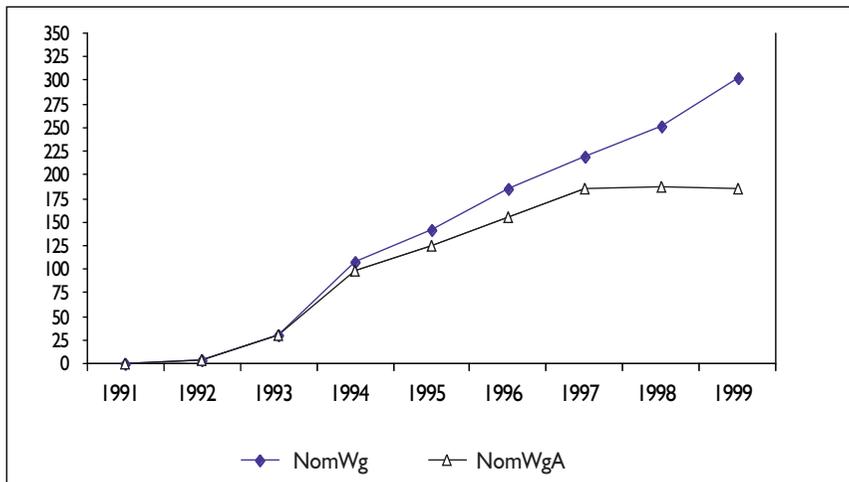
in Russia a clear evidence of inverse relationship was found. Changes in relative wages have dominated changes in relative employment and unemployment [Commander and Yemtsov, 1995].

The question arises which pattern has been observed in Moldova?

### 5.1. Dynamics of Nominal and Real Wages

Nominal wages have seen a substantial increase since 1991, mainly driven by the low starting levels of a few lei, resulting from a switch from Roubles to Lei (Figure 5).

**Figure 5. Nominal and Nominal Adjusted for Arrears Average Wages (Lei), 1991–1999**



Source: Department of Statistics and Sociological Analysis and author's calculation

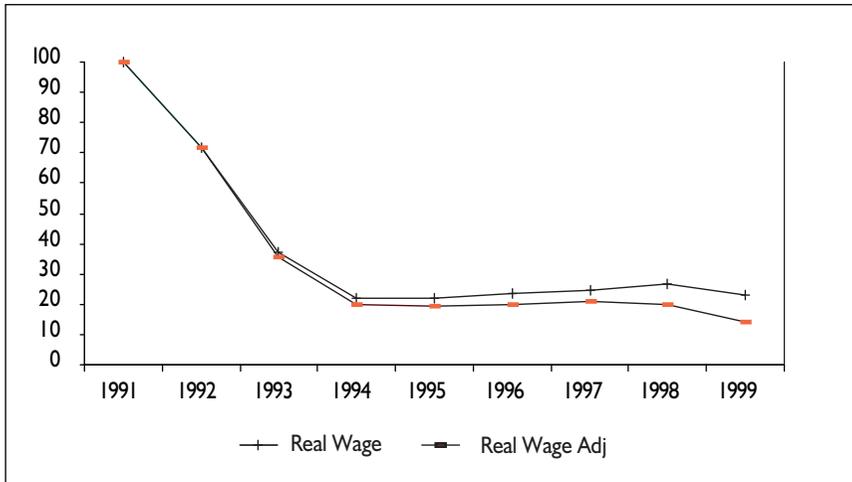
If adjusted for arrears, the picture looks somewhat different [26]. With the tendency of accumulating stock of arrears, a gap between nominal and adjusted for arrears wages has been increasing since 1994. In 1998 adjusted for arrears wages accounted for only 60% of the nominal wage level.

However, the actual picture of wage evolution is given by the dynamics of real wages (Figure 6). Deflating by Moldova's consumer price index yields a real wage in 1999 of only

[26] Existing data for arrears is only cumulative. We take end-year figures, under the assumption that arrears are normally paid over the year period.

23% of the 1991 level. Most of this loss has occurred in 1992–1993 due to big jumps in inflation. Since then, real wages have been stagnant and beginning from 1996 a slight upturn was observed. It was offset shortly in 1998, as a result of negative consequences of the Russian crisis.

**Figure 6. Real and Real Adjusted for Arrears Average Wages, 1991–1999**



Source: Department of Statistics and Sociological Analysis and author's calculation

Adjusting for widespread arrears, those developments look even poorer. Improvement in real wage dynamics has become almost negligible, with actual wage levels in 1998 amounting to only 14% of the pre-transition level.

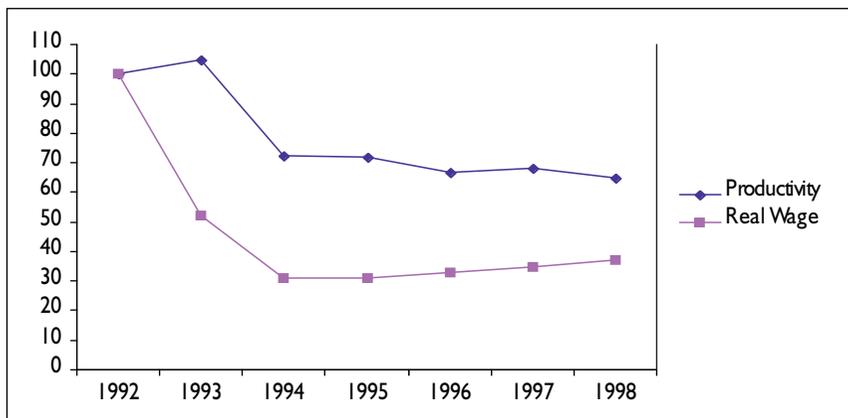
The harm of wage arrears is obvious. Though forbidden by law, the state and enterprises borrow from employees without their direct consent. It directly leads to a worsening of population welfare, contrary to the essential role of market reforms.

It should be also noted, that official statistics tend to understate actual wage levels. Underreporting is common due to tax reasons. Further bias is caused by the coverage, with small-scale firms and self-employed who are often better paid not covered by official surveys. Another point is that monetary compensation accounts to only a part in total compensation. A substantial part is secured by the wide range of benefits provided by enterprises (see above). However, it remains obvious that changes in relative wages have substantially dominated changes in employment.

## 5.2. Unit Labour Costs

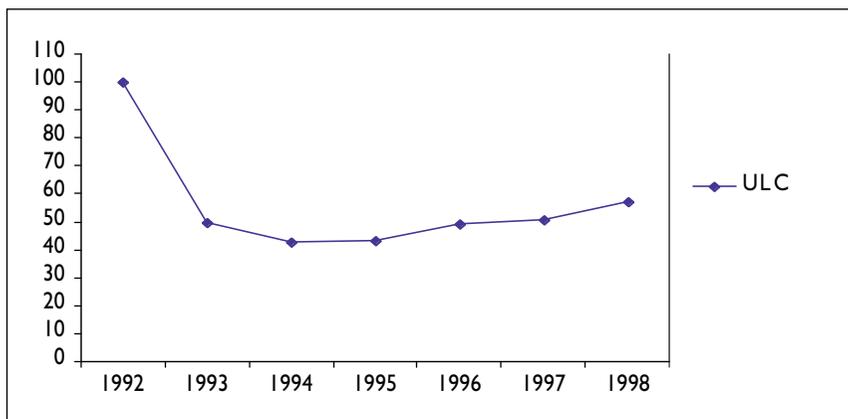
As a result, decline in real wages outpaced decline in productivity, with an implication of a fall in unit labour costs [27] (Figure 7 and 8).

**Figure 7. Productivity and Real Wages, 1992–1998**



Source: Department of Statistical and Sociological Analysis, IMF and author's calculation

**Figure 8. Unit Labour Costs, 1992–1998**



Source: Department of Statistical and Sociological Analysis, IMF and author's calculation

[27] Unit Labour Costs are calculated as wages divided by productivity.

**Table 8. Changes in Unit Labour Costs in CEE Countries, Russia and Moldova**

	<b>Unit Labour Cost</b>
Bulgaria	72
Czech Republic	72
Hungary	93
Poland	122
Romania	67
Russia	52
Moldova	51

Source: Moldova data is for 1997 over 1992 (author's calculation); CEE countries and Russia - 1995/1990 [Commander and Tolstopiatenko, 1997]

Unit labour costs in Moldova resemble those in Russia, standing in a sharp contrast with CEE countries (Table 8). It appears that wages were traded down for preserving employment level in Moldova.

## **6. Conclusion**

Analysis of labour developments in Moldova allows us to conclude that adjustment to a new market order in Moldova has been done through prices. Real wages amount to only 23% of the pre-transition level. If adjusted for arrears, relative wages are pushed further down to 14%. On the other hand, only small labour shedding is observed. Registered unemployment rate is one of the lowest in the FSU and CEE countries.

Factors underlying the observed pattern of adjustment in Moldova are consistent with previous findings. Enterprises continue to face soft budget constraint implying wide range of benefits. This creates strong incentives for employees to stay at enterprises, given the fact that unemployment insurance schemes are poor and limited.

Such an adjustment, however, has a number of important negative consequences. Preserving labour at enterprises leads to a phenomenon of unpaid leaves. It appears that only formal affiliation with enterprise remains, leaving those people effectively unemployed. Survey evidence reports double-digit open unemployment rates, with widespread under-employment.

Further adverse implications stand. Implicit subsidising of employment leads to lower transparency. It results in losses during redistribution process and high inflation [28]. Soft subsidies also indicate low relative probabilities of closure and restructuring. It means no job destruction at unproductive enterprises. Moreover, wide-range benefits at enterprises raise reservation wage with negative implications for the growth of the private sector.

Widespread labour under-utilisation and lack of job opportunities in the formal sector skew development of labour market towards informalisation. The situation is worsened by the fact that there is no system in place to protect socially vulnerable groups of populations. Unemployment benefits are far from providing a minimum subsistence level. As a result, a substantial number of labour force is involved in survival informal activities, with low efficiency gains for themselves, and no surplus to the economy.

With privatisation in agriculture under the National Land Programme some positive developments are underway. However, emerged insufficient economies of scale impede productive job creation. Most of individuals are involved in farming for self-consumption. Prevalence of small-scale activity and family businesses leads to the situation when a large part of new jobs is not registered.

Observed negative tendencies on the Moldovan labour market mirror slow pace of structural and institutional reforms in the country. To create productive job opportunities, structural reforms must be fostered. Further restructuring of inefficient enterprises with introducing hard budget constraint, formal development of private sector and the legal base is needed. In agriculture this entails concentration of land, development of markets and associated infrastructure for inputs and crops, expansion of credit markets. Creation of favourable investment climate in agriculture would be a possible solution.

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[28] The costs of redistribution are analysed in [Zaman and Radziwill, 1999].

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