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## Chapter II: Growth, Employment and Regional Dynamics

### 2.1. Growth and Employment in Ukraine

After experiencing the negative effects of transition and the Russian crisis in the late nineties, Ukraine experienced fast economic recovery averaging about 7 percent per year. Growth was initially driven by a strong external demand, particularly for manufactured products, due to the depreciation of the domestic currency, and the economic recovery in Russia and other CIS countries. The positive external context was also accompanied by key elements in domestic policy such as macroeconomic stability, budget discipline, financial transparency, consolidation of privatization efforts, external liberalization, and, reform in agriculture, among other factors (World Bank, 2004a).

The recent rapid growth was driven by industry and trade, and followed by construction. By 1999 industry and trade were the only sectors growing in a stagnant economy, and by 2003 these sectors were growing at 14 and 20 percent per year, respectively. While industrial growth was led by machinery production for export between 1998 and 2000, it shifted towards the domestic market after 2001. The production of machinery directed to the internal market is due to the expansion of food and machine-building activities, which represented close to 40 percent of all industrial manufacturing by 2003. This also reflects the rapid growth in fixed capital investment that has even outpaced GDP growth in recent years. Other sectors such as agriculture, however, evidence a mixed growth record due to weather anomalies and structural changes in farm organizations. While in 2000 and 2001 agricultural growth was more than 10 percent per year, it only reflected the recovery from previous bad years and improved credit conditions. Finally, the extreme winter weather in 2003 dropped agricultural GDP by 10 percent.

Table 2.1: Ukraine Real GDP Growth (percentage change)

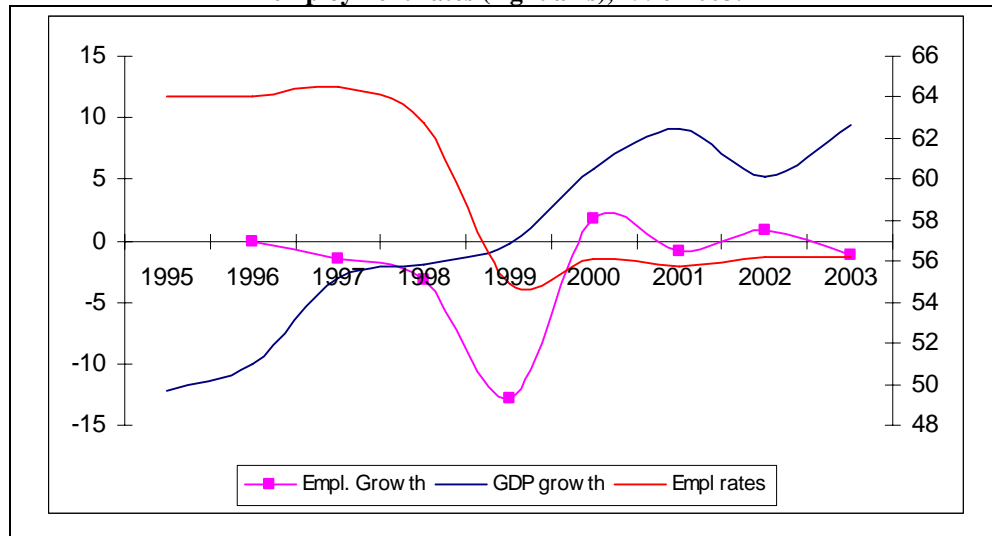
	1998	1999	2000	2001	2002	2003
GDP	-1.9	-0.2	5.9	9.2	5.2	9.4
<i>of which:</i>						
Industry	0.0	6.0	5.0	11.3	6.8	13.6
Construction	-0.4	-6.6	-6.1	7.8	-2.6	23.1
Agriculture 1	-11.2	-3.7	12.5	10.2	2.0	-9.9
Trade 2	-1.7	7.8	9.1	43.0	7.8	19.6
Transportation 3	1.2	-7.3	2.8	5.1	7.4	12.4
Other Services	-1.3	-3.2	2.2	12.7	6.7	6.3

Source: IMF Ukraine Statistical Appendix (2004). Notes: 1. Agriculture includes forestry. 2. Freight and passenger transport, including communications. 3. Includes public catering, material procurement, sales and provisioning

The recent growth has not yet paid off in terms of employment in Ukraine. Overall employment has remained stagnant. In fact, employment rates – the share of population aged 15-70 that are actually employed – fell significantly in 1999 and remained at stable levels (Figure 2.1). In spite of another year of high output growth in 2003, employment numbers have still not shown any sign of reinvigoration. Unemployment has declined in recent years from almost more than 11 percent in 2000 to 9.1 percent in 2003, and preliminary estimates for 2004 suggest even further decreases. The paradox between declining unemployment rates and stagnant employment rates is partly explained by the slow but steady declines in labor force participation. In addition,

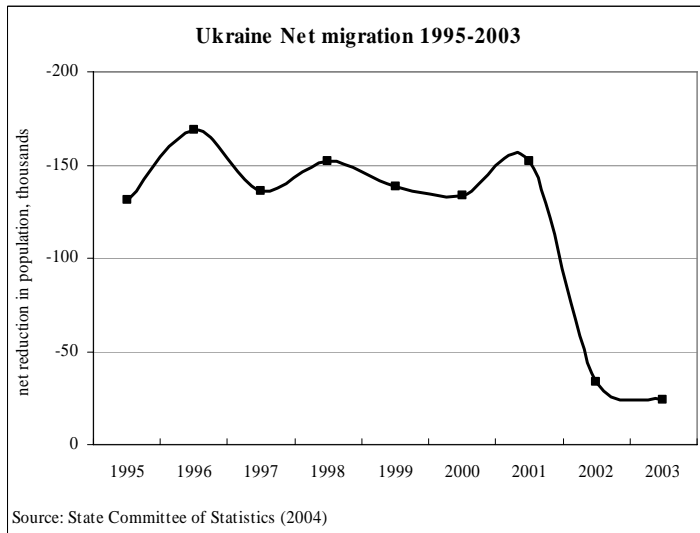
the country experienced significant emigration during the last decade, reducing the number of labor market participants.

**Figure 2.1: Ukraine GDP growth and employment growth (left axis) 1/, and employment rates (right axis), 1996-2003.**



Source: World Development Indicators, Statistical State Committee of Ukraine (SSC).  
1. Annual percentage change, for age groups 15-70.

**Figure 2.2: Migration in Ukraine**



Source: State Committee of Statistics (2004)

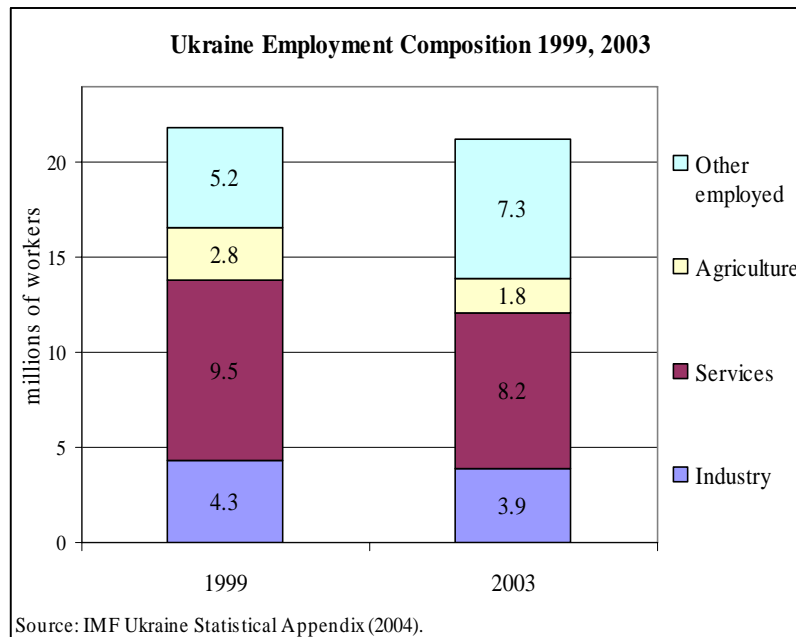
The stagnant labor participation is partly explained by significant migration abroad during the nineties, representing more than 1.2 million individuals between 1994 and 2003. Official accounts of migration -- that usually underestimate the real magnitude of this phenomenon -- indicate that, on average, more than 140 thousand Ukrainians left the country each year between 1995 and 2001 (Figure 2.2). In 2002 and 2003 out migration slowed significantly to 34 and 24 thousand respectively (State Committee of Statistics, 2005).

Even though these levels of international migration seem moderate there is evidence suggesting that temporary migration maybe more spread. According to a survey about 5 percent of the population aged 20 to 49 years migrated during 2000, many of them conducting labor trips (Libanova and Poznyak, 2002). Different patterns of migration are observed in Ukraine, where migrants of 40 or above tend to migrate to the Russian Federation and other CIS states, while younger migrants move to Europe and other Western countries. Overall estimates suggest that there are between 2 and 5 million Ukrainians working abroad (Malynovska, 2004). The oblasts of Chernihiv, Rivne and Volyn are the ones that send more migrants abroad relative to their

populations, although oblasts like Zakarpattya and Luhansk send more than 28 percent of the official migrants (SSCU, 2005).

**The stagnant aggregate employment numbers hide important sectoral shifts.** An important shift in labor has occurred between the public and the private sector, since the period 1999-2003 saw a doubling in private employment, while public employment and especially collective employment fell. Yet, state owned organization, entities or institutions remained the single largest source of employment, still absorbing 47 percent of all employment. Collective enterprises (mostly farming enterprises in rural areas) accounted for 10 percent, while only one in five workers were employed in a private company. This mimics the process during the last years where a substantial number of public enterprises have been privatized.

**Figure 2.3: Employment Composition by Sector**



**The increasing role of the private sector has also resulted in shifts within economic sectors.** Overall employment in Ukraine has remained at about 21 million workers. One sector of particular interest is agriculture, where the land reform process has converted a number of farms into private organizations. Once under private ownership, firms have gained in productivity by increasing investment and modernizing the existing machinery while reducing excess labor by almost a million workers between 2000 and 2003, the largest sectoral reduction in labor in this period (about a third of the agricultural workforce). In turn, most of these workers have turned into their own household lands and turned self-employed workers: more than 60 percent of the former farm labor that was laid off is now occupied in cultivating their own lands. Industry, despite rapid growth, has not increased its importance in the economy keeping constant levels around 19 percent of workers or about 4 million workers.

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## 2.2. Trends in labor market indicators

**This report uses a revised definition of unemployment and a definition of underemployment.** The analysis of employment, unemployment and labor force participation in this paper is largely based on data from the Household Budget Survey using corroborative evidence from the Labor Force Survey (LFS).<sup>9</sup> One important difference between the HBS and the LFS is in the definition of unemployment. In the HBS, unemployment is simply based on whether the respondent answered that he or she was unemployed at the time, while in the LFS, it is deduced from questions relating to whether the person worked for at least one hour in the week preceding the interview (that is following the ILO definition). Unemployment rates based on self-identification in HBS data are about twice as high as suggested by LFS numbers – most likely because people who do engage in casual work activities and/or subsistence farming are not counted as unemployed according to the LFS definition. But it is likely that many of those with irregular income sources of this kind would have preferred a regular job and so to some extent should be considered unemployed or at least not optimally employed.<sup>10</sup> The key definitions are as follows:

- Labor force participants are defined as those who declared to be either unemployed or employed in the survey.
- The core unemployed are defined as those who (i) declared to be unemployed and (ii) reported no income from any workplace.
- The employed are all other labor force participants.
- The *underemployed* are defined as a subcategory of the employed, namely those who (i) declared to be unemployed and (ii) reported income, but less than the minimum wage for the year in question. As a result of this upper limit on earnings, there are some people in the HBS who defined themselves as unemployed but, since they earned more than the minimum wage, are defined as employed in this study.<sup>11</sup>

### Labor Force Participation

**A larger share of the population in active age has dropped out of the labor market.** According to the LFS, between 1998 and 1999, *labor force participation rates* – the share of population in active age that were either employed nor looking for work - fell quite drastically, from 71 to 62 percent, leveling out at around 63 percent between 1999 and 2003. HBS data show

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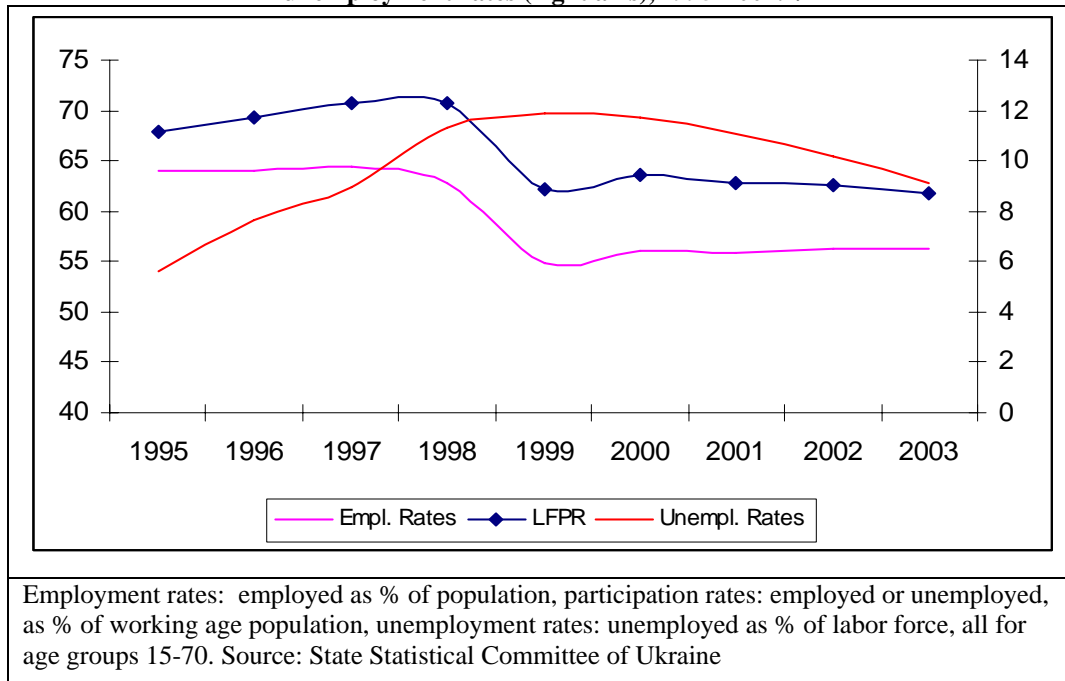
<sup>9</sup> LFS data generally has several advantages over the HBS, since it is collected specifically for the purpose of measuring labor market activity and contains much more detailed information on wages, hours worked, type of contract, and other important aspects. For example, the HBS does not detail what sector of industry a worker is employed in, nor are there ways of tracking issues like sectors of informality, wage rates or incidence of wage arrears. In addition, a good overview of labor market conditions using the LFS is provided in World Bank (2003).

<sup>10</sup> Indeed this is suggested by the fact that many who report income from a primary or secondary work place simultaneously identify themselves as unemployed in the HBS. Annex 5 discusses in detail some different possible methods and the implications in terms of analysis.

<sup>11</sup> Using the minimum wage as an upper threshold of what could reasonably be expected to be unsatisfactory employment is clearly somewhat arbitrary. The most logical alternative would be to include all those who defined themselves as unemployed and earned income as underemployed. Since income tends to be underreported in most surveys, there is also probably an upward bias in our definition of underemployment.

labor force participation rates at a slightly higher level (69 percent in 2003), and also suggest a marginal decline between 1999 and 2003.

**Figure 2.4: Labor Force Survey: Employment rates and participation rates (left axis), unemployment rates (right axis), 1995-2002.1/**



## Employment

**The non-agricultural sector - especially the services sector - continues to increase its share of employment, due to a changing labor market structure in rural areas.** According to household data, in 2001, agriculture accounted for 13 percent of all employment, industry for 25 percent, construction for 5, and services for 57 percent.<sup>12</sup> Compared to 1999, this represents a small shift away from the agricultural sector and towards the services sector, mostly on account of dynamics in the rural employment structure. Although the agricultural sector still accounted for a large share of total employment in rural areas in 2001 (43 percent), its importance has significantly reduced since 1999, when it accounted for 50 percent of all jobs. The services sector, in turn, increased its share of employment to 44 percent, at par with agriculture. In contrast, the employment structure in urban areas remained fairly static. By 2001, services accounted for 62 percent of all jobs, industry for 29, and construction for 5 and agriculture for a negligible 3 percent (Table 2.2).

<sup>12</sup> 2001 is the latest year for which there is data available on sector of work in the HBS.

**Table 2.2: Employment by economic sector (%), rural and urban areas.**

	Rural areas			Urban areas		
	1999	2000	2001	1999	2000	2001
Agriculture	50	47	43	4	4	3
Industry	8	8	10	29	30	29
Construction	3	2	3	6	5	5
Services, of which:	39	42	44	61	61	62
Transports and communications	7	7	7	10	10	10
Commerce	3	5	4	9	10	11
Health, education and social protection	18	18	22	18	18	18
Other	11	12	11	23	23	23
Total	100	100	100	100	100	100
Memo: rural/urban share of total national employment (%)	27	26	25	73	74	75

Source: Staff calculations based on HBS. Note: This table includes only those who reported that they were employed and reported in which sector they were employed.

## Unemployment and Underemployment

High and long duration unemployment on average, may have contributed to discouraging workers from actively looking for a job. In fact, the drop in labor force participation rates is probably partly a consequence of increasing unemployment during the mid-1990s, as discouraged workers unable to find jobs over a sustained period of time, decide to drop out of the labor force and stop looking for a new employment. There is also evidence of an increase in the number of job seekers who remain unemployed for more than one year (see Box 2.1).

The slow but steady decline in unemployment since 1999, has given way to rising underemployment instead. Unemployment, as measured in the LFS, doubled from 5.6 percent in 1995 to 11.9 percent of the labor force in 1999, and has seen only a small decline since, to 9.1 percent in 2003. *Core unemployment*, as derived from HBS data, is at a lower level and also indicates a stronger improvement between 1999 and 2002, when rates fell from 8.7 to 5.8 percent of the labor force. But this decline is partly the result of the way unemployment rates are defined: instead, *underemployment* has increased, from 8.4 percent to 9.2 percent of the population. The stagnating labor force participation and a rising share of population who still define themselves as unemployed in spite of earning some income suggests that many more would like to be fully employed than is currently the case.

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### **Box 2.1. Unemployment duration in Ukraine**

*Generally, CIS countries like Ukraine have been thought to have lower levels of open unemployment and shorter spells of unemployment duration compared to transition countries in Central Europe, due to lower relative wages, higher wage flexibility, and to the fact that rather than firing workers, total labor costs have been adjusted through wage arrears, unpaid forced leave and similar practices. But recent evidence from Ukraine for the years 1999-2001 suggests that most of the unemployed remain so for more than one year – average unemployment duration is almost two years – and that unemployment duration has increased since 1999.*

*Econometric analysis suggests that the likelihood of exiting unemployment sooner rather than later is linked to the likelihood of being employed in the first place. Thus, married people with higher education levels, living in larger cities and in regions with relatively low unemployment, are more likely to find a job than other groups. In addition, unemployment benefits do not appear to play an important role in discouraging active job search or raising reservation wages. Instead, people who do receive income from causal work activities or tend private plots remain unemployed longer before finding a regular job.*

Source: Kupets (2004b)

### **2.3. Poverty and labor market opportunities.**

**The dynamics in labor markets closely follow the poverty profile.** Though standard labor market indicators such as labor force participation rates and unemployment numbers suggest a relatively stable labor market in Ukraine, there is a growing diversity between different categories of workers. This section discusses the recent trends from a poverty perspective to assess where and for whom there is employment, and how this labor market profile has changed over time. The fact that core unemployment has fallen for most workers is an encouraging sign, however, there are two accompanying and relatively worrying trends: the increasing lack of employment opportunities in rural areas, and more specifically a rise in underemployment, as well as for people in poorer consumption groups, relative to all other groups.

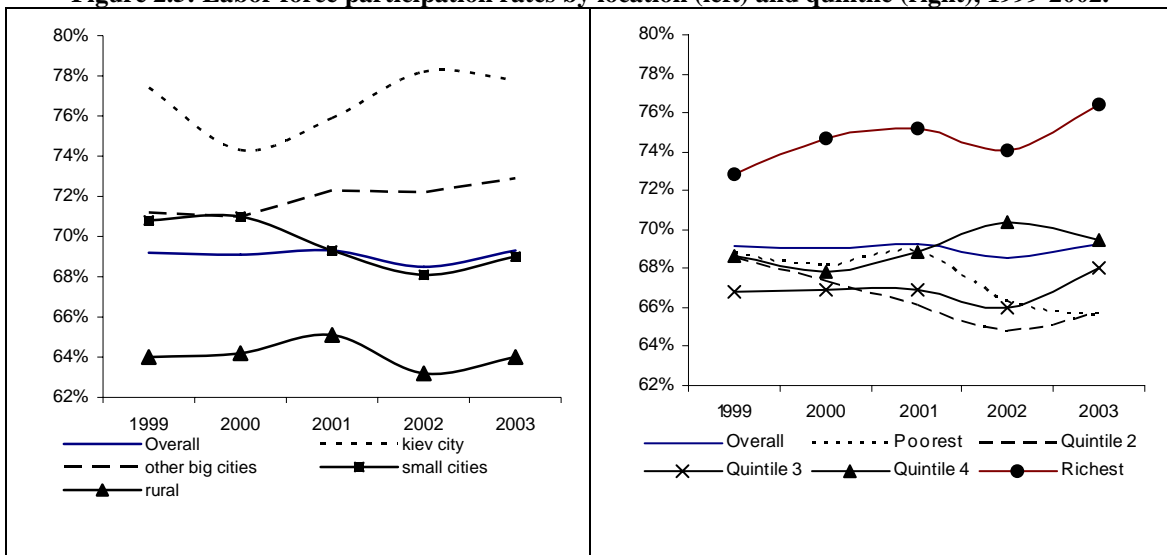
#### **Labor Force Participation and Poverty**

**Participation in labor markets show rural areas are lagging behind; however, the Southern region is continually doing better compared to other regions.** Labor force participation is larger in large cities compared to small towns and rural areas: in 2003 labor force participation rates reached 78 percent in Kiev and 73 percent in other big cities, compared to 64 percent in rural areas (Figure 2.5). Declines in labor market participation in rural areas and small towns have widened this gap in recent years. The Southern region, which in 1999 had the highest labor force participation rate at 70.3 percent, has seen an even greater increase, from 70.3 to 72.0 percent in 2002.

**The poor have less access to the labor market, and the gap between poorer and richer has not narrowed over time.** Labor force participation rates differ, though not remarkably, between richer and poorer, ranging from 65.6 percent for workers belonging to the poorest consumption quintile to 76.4 percent for the richest quintile in 2003 (Figure 2.5). Moreover, the poorest two quintiles have seen a drop in labor force participation rates since 1999, while the three richest quintiles have seen an increase. There is a shift in the role of factors

underlying these participation differences: initially participation gaps were closely associated to location (settlement type and region), but since 2003 poverty is playing an increasing role.<sup>13</sup>

**Figure 2.5: Labor force participation rates by location (left) and quintile (right), 1999-2002.**



Source: Staff calculations, based on HBS data

**Women, especially in rural areas, are less active in the labor market than men, and the gender gap has also widened slightly since 1999.** About 76 percent of all men aged between 15 and 70 were active in 2003, compared to 63.5 percent of all women. Overall, women appear to enter the labor market at a later age and leave earlier than men, as witnessed in more important gender gaps for ages 15-34 and 55-70. These disparities are also considerably larger in rural areas than in urban areas and are not driven by marital status or levels of education. Household demographic composition seems to play an important role for females since the share of elderly or children aged 0-13 in the household is a strong damper for labor participation. Lack of alternatives for child care, as well as elderly care, are likely to be a binding constraint for many women. The lack of child care opportunities has been already raised by other reports focused on gender equality, such as those assessing the Millennium Development Goals (Ministry of Economy, 2003).

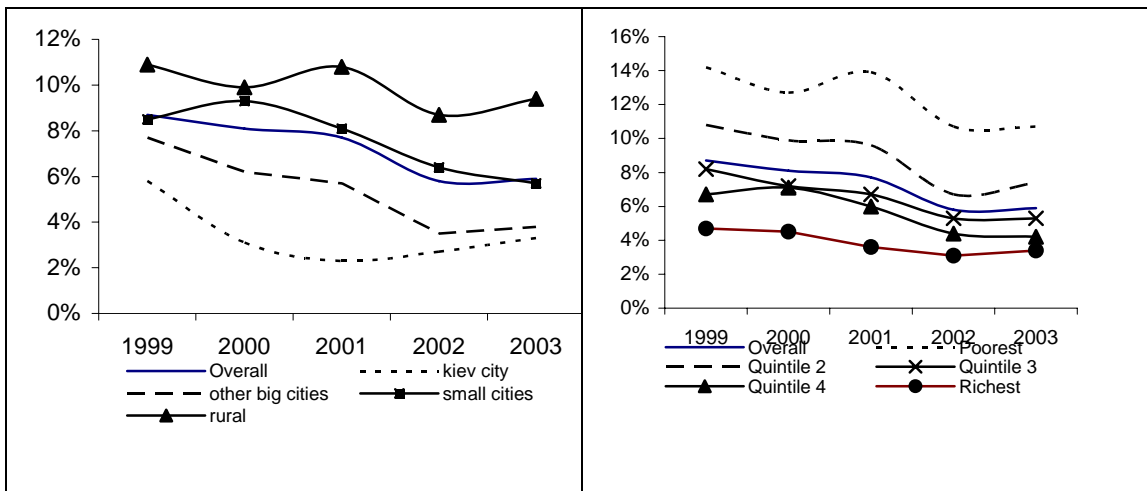
**Employment rates have stagnated for the poorer, especially in small and rural settlements, and poor workers have moved from industry to services.** In rural areas, and more so for the poor, the combination of falling labor force participation and slower reduction in core unemployment illustrated above has translated into relatively static employment rates. Yet, there have been structural shifts within sectors of employment. The poor were, by 2001, particularly over-represented in agriculture, but also in construction and commerce. This pattern marked a shift since 1999 of poor workers out of the industrial sector, and into commerce.

<sup>13</sup> A detailed analysis of labor force participation is in Annex 6.

## Unemployment, underemployment and poverty

**Core unemployment rates have fallen since 1999, especially in urban areas, but there are still important -- and increasing -- differences between rural-urban and poorer-richer groups.** Core unemployment is very low in urban areas, but remains an issue in rural areas. In 2002, core unemployment rates – the share of people who declared to be unemployed and who reported no work income – reached 9.4 percent in rural areas and 5.7 percent in small settlements, compared to 3.3 and 3.8 percent in Kiev and other big cities, respectively. The rural-urban gap also widened since 1999: rural unemployment rates remained stagnant between 1999 and 2001, while larger urban settlements saw a continuous decline, and only in 2002 did rural unemployment rates see a reduction only to rise again in 2003 (Figure 2.6). Core unemployment has fallen in all four regions, but the Western region retains the highest level of unemployment, at 9.1 percent in 2002.

**Figure 2.6: Core unemployment rates by location (left) and quintile (right), 1999-2002.**



Source: Staff calculations, based on HBS data

**Unemployment is more prominent among women than men but the gap has narrowed since 1999.** Female unemployment rates at 6.6 percent exceed male unemployment rates at 5.2 percent, but the two have converged since 1999. Both men and women in the age group 15-24 run the highest risk of being unemployed compared to other age groups. The probability of being unemployed for older workers (55-70) is in turn very small, probably because these people drop out of the labor market or are retired, if there are no opportunities for work.

**Core unemployment is correlated with lack of education, but unemployment among workers with secondary education is relatively high.** For men as well as women, and for all age groups, having completed tertiary education increases the probability of finding a job: unemployment rates are only 1.7 percent for men who have completed higher education and 2.4 for women. But, importantly, those with basic or completed secondary levels of education have the highest levels of core unemployment of all. Higher level of education also pays off significantly in terms of unemployment – workers who have completed higher education have much lower rates of core unemployment than those with lesser levels of education. The

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multivariate analysis confirms that as in the case of labor force participation, the significant premium to education only kicks in at the level of higher education, especially in rural areas.

**The active poor have more difficulties finding a job than the non-poor.** Core unemployment rates are negatively correlated with income/consumption levels: the poorest quintile has by far the highest unemployment rate, 10.7 percent compared to 7.4 percent for the second quintile, and then successively falling down to 3.4 percent for the richest quintile (figure 5). Though all groups have been seeing falling unemployment rates, the gap between the poorest and the richest has increased somewhat since 1999. The poor in Kiev areas have the highest core unemployment rates of all (18.2 percent), but the gap between poor and rich is in fact decreasing over time. Workers from the poorest 20 percent of the population are remarkably more vulnerable to core unemployment than any other quintile.

**Underemployment is becoming more widespread in rural areas, among young males and less educated individuals.** In 2003, 13.1 percent of the rural active labor force was underemployed, compared to 10 percent in small cities, and 4.8 and 4.7 percent in Kiev and other big cities. Following the trend in unemployment, the rural-urban gap has also widened since 1999. This urban-rural dimension is, in fact, explained by differences in economic activity across regions, since underemployment has also increased in the Southern and Western regions. The underemployment problem is especially clear for young males and less educated. Though women are over-represented among the core unemployed compared to men, they suffer relatively less from underemployment.<sup>14</sup> The key factor behind the worsening underemployment rates for men, and indeed the overall rising trend in underemployment, is the worsening situation for men in rural and semi-urban settlements. Like unemployment, underemployment is negatively correlated with age, and especially young men fall into this category. The pattern for underemployment further underscores the links between access to employment and levels of education. Returns to education (in terms of securing an employment) are higher for mid age workers (25-54) than younger or older age groups. This suggests that the youth, and in rural areas, are a groups of high risk of labor market exclusion.

**And poverty is fundamentally linked to inferior forms of employment.** Unsurprisingly, poverty is critically linked to underemployment: between 1999 and 2003, underemployment rates increased for all but the three richest quintiles. As a result, the gap between poorest and richest quintiles increased from underemployment rates of 13.4 vs. 4.9 percent in 1999, to 17.6 vs. 3.4 percent in 2003. Again, the poor in rural areas are universally worst off, though the gap between rich and poor is actually more pronounced in urban centers. The linkage with poverty is again corroborated by the incidence of underemployment in agriculture and commerce sectors. There is a fair amount of underemployment in the agricultural sector, relative to its share in total unemployment, which is reflecting the alternative to tend a private plot. There is also more underemployment in construction, relative to overall employment, and in commerce (Figure 2.7). These are also sectors where a relatively higher share of the poor work.

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<sup>14</sup> Thus, if core unemployment rates and underemployment rates are added up (to include all those defining their socio-economic status as unemployed and earning less than the minimum wage), male unemployment rates are higher than female.

**Figure 2.7: Share of total employment and total underemployment, by economic sector**



Source: HBS. Note: Total employment – underemployment.

**But what about the labor demand side?** This growing diversity begs the question whether there are similar dynamics on the labor demand side, i.e. in enterprises. For example, the analysis of the HBS shows that there is a high and in many cases growing premium to higher education in terms of labor market access, which suggests that more productive workers are becoming increasingly attractive. This is likely to be evidence of some restructuring process, as enterprises are forced to look for more productive workers to stay competitive. Against this background, the following section looks at job dynamics in enterprises in Ukraine in recent years.

#### **2.4. Job Dynamics and Productivity**

**The recent surge in economic growth might have resulted in higher job turnover rather than higher net employment growth.** High rates of job creation and destruction can therefore be evidence of more dynamic product *and* labor markets, with higher flexibility, improved efficiency, and changing job characteristics, even if net employment numbers are stagnant. However, if there are remaining distortions in the economy, there may be little reallocation of jobs, or even reallocation from efficient to more inefficient sectors and firms. A previous study on job creation and destruction (Brown and Earle, 2002) compared Russia and Ukraine during 1996-2000, and concluded that more and faster economic reforms in Russia had paid off in terms of better job creation. A more recent study (Konings et al, 2003) indicated that between 1998 and 2000 there was a net negative employment effect in Ukraine, a pattern found in early stages of transition in other countries. New private establishments had stronger employment growth and also reallocated more jobs than state-owned and privatized establishments, and both import competition and export growth helped firms to grow. A stronger trade openness with the EU and non-CIS countries enhanced net job creation, while sectors linked to CIS-oriented trade had little job destruction but no job creation either. This section provides an overview of the recent pattern of job dynamics in Ukraine. The analysis is based on a rich industrial firm-level

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census-type panel dataset, and as opposed to previous studies includes both a period of low growth between 1997 and 1999 and the subsequent period of high growth 2000-2001. The detailed analyses and description of the data used can be found in Annex 4.

**Box 2.2 Job creation and job destruction: key concepts:**

**Gross job creation** in one year (in a particular sector) is the sum of all employment gains that year in firms (in that sector) that start up or expand between in a year.

**Gross job destruction** is, similarly, the sum of all employment losses in firms that contract or shut down (in that sector), during the year.

**Net employment growth** is simply the difference between gross job creation and gross job destruction.

**Gross job reallocation** is the sum of gross job creation and gross job destruction, and is considered to be a useful measure to characterize the dynamics (extent of job creation and job destruction) of the labor market.

**Excess job reallocation** is the difference between the gross job reallocation and the absolute value of the net employment growth. This measure captures the amount of “churning” by firms, i.e. how much actual job reallocation exceeds what would be necessary to accommodate the net actual change in employment. Again, this measure is an important indicator of the extent of dynamism in the labor market.

These indicators are usually expressed as rates, i.e. divided by total employment numbers (in a particular sector).

**The one or two year persistence** of job creation (destruction) in a year is the fraction of newly created (destroyed) jobs that remain filled (do not reappear) one or two years later.

Source: Kupets (2004b)

**Though job destruction dominated until the end of the 1990s, job creation and job turn over has increased since 2000, pointing to a more dynamic job market in Ukraine.** The job market appears to have responded to economic growth with increased dynamism, more employment growth and higher job turnover. Gross job reallocation rates increased quite dramatically between 2000 and 2001, due to a jump in job creation. As a result, net employment growth became, for the first time, positive in 2001. Given the continued high rates of job destruction, excess job reallocation also jumped. In all, these are signs that not only is employment growing, but there is also an important reallocation process going on, with jobs simultaneously being created and destroyed (Table 2.3). Moreover, job flows are becoming less and less of a primarily a temporary phenomena: some 8 out of 10 newly created jobs in 2000 remained filled in 2001, while 8 out of 10 jobs destroyed in 2000 remained unfilled on year later. This is also evidence of a positive trend, as the persistence rate of job creation has increased significantly over time, while that of job destruction is declining. In all, this implies that workers who get a job also get to keep it over time, and that long-term unemployment on the other hand is on decline.

**Table 2.3: Aggregate Job flows (rates) and persistence in Ukrainian industry**

Year	1998	1999	2000	2001
	Job flows			
Job creation	2.2	3.0	4.1	10.6
Job destruction	9.1	9.4	8.1	8.2
Gross job reallocation	11.3	12.4	12.2	18.8
Net employment growth	-6.9	-6.4	-4.0	2.4
Excess job reallocation	4.5		8.1	16.4
On year creation	72.9	6.0	85.9	–
Two year creation	64.1	Flow persistence	–	–
One year destruction	94.3	91.8	84.3	–
Two year destruction	88.8	80.0	–	–
No. firms	7671	9066	8074	7281

Source: Kupets (2004a)

**The job market in Ukraine appears quite vigorous, in the sense that net employment growth is positive, while job reallocation is high.** Job creation rates have in fact increased to levels comparable in other advanced countries. Job destruction rates remain lower, however, suggesting that the Ukrainian labor market is still not functioning in the same manner as more developed market economies.

**Table 2.4: Aggregate job flows, Ukraine and comparators.1/**

Country	Year	Creation	Destruction	Gross job reallocation	Net employment growth	Excess job reallocation	No. firms
Ukraine	2001	10.6	8.2	18.8	2.4	16.4	7281
Ukraine	1996-2000	2.2	10.0	12.1	-7.8	4.3	7000
Russia	1996-2000	3.5	8.7	12.2	-5.2	7.0	16500
Estonia	1994	10.1	11.0	21.1	-0.9	20.2	n/a
USA	1973-1986	9.2	11.3	20.5	-2.1	18.4	n/a

Source: Annex 4. 1. All data refer to manufacturing sector firms. Sources of comparators are: Ukraine and Russia 1996-2000: Brown and Earle (2002), Estonia 1994: Haltiwanger and Vodopivec (2002), USA 1973-1986: Davis and Haltiwanger (1992).

**Job dynamics differ considerably between different types of firms and sectors, with a pattern of job reallocation from low labor productivity (and low wages) firms to firms with higher productivity and higher wages.** Within the manufacturing sector, sub-sectors differ greatly in degree of job dynamics. The manufacturing sector shows tremendous heterogeneity in

terms of job creation and destruction. First, only one in four sectors have positive net employment growth - these are oil, gas and metal extraction, water and electricity, metal industry and oil and coke refinement, and tobacco – while all other sectors evidence net job losses. The sectors most affected by restructuring, i.e. that see large net employment losses, are electric machinery, textiles and leathers, wood and furniture manufactures. Second, measures of job turnover also differ greatly: gross job reallocation rates range from 35 percent in extractive oil industries to 8 in refinement industries (of oil, coke and nuclear products), while excess job reallocation ranges from 2 percent in extractive industries to 13 percent in manufacturing of wood products, where job destruction is very high but where there is also considerable job creation. As table 4 below suggests, there is also a weak tendency for sectors which account for a larger share of employment (bold in the table) to see both negative employment growth and relatively low job turnover -for example mining of coal and lignite together with machinery and equipment manufacturing, which together account for 25 percent of all employment. In fact, the only sector with relatively large share of employment (9 percent) that does see a high degree of job creation is manufacturing of basic metals.

**Table 2.5: Manufacturing sectors classified by gross job allocation, employment growth and share of total industry employment**

	High gross job reallocation	Low gross job reallocation
Positive net Employment growth	Extraction of petroleum and natural gas Recycling Water collection, purification and distribution	Basic metals Electricity, gas, steam and hot water Mining of metal ores Tobacco products Manufacture of coke, refined petroleum products and nuclear fuel
Negative net employment growth	Food products and beverages Textiles Metal products Radio, television and communication equipment Leather and leather products Wood and wood products Rubber and plastic products Office machinery and computers Medical, precision and optical instruments, watches and clocks Furniture; manufacture n.e.c.	Mining of coal and lignite Chemicals and chemical products Other non-metallic mineral products Machinery and equipment Manufacture of other transport equipment Clothing Other mining and quarrying Pulp, paper and paper products Publishing, printing, reproduction of recorded media Motor vehicles, trailers and semi-trailers

Source: Kupets (2004). Note: High gross job reallocation is defined as above the industry median (15 percent), while large share of employment is defined as above industry median share of employment (2 percent).

**Large enterprises are least dynamic in terms of job turn-over, suggesting that there are some obstacles to the transition process.** <sup>15</sup> Though very large firms may be in greater need of downsizing than others, they are also likely to face higher trade union power and political resistance to job destruction. <sup>16</sup> As a result, these types of enterprises are still associated with low job turnover and less severe net employment losses than other types of firms. Firms with less than 250 employees see more than twice the job turnover and excess job reallocation rates than do

<sup>15</sup> Sharp declines in employment volatility with size is a finding consistent with Faggio and Konings (2001) for transition countries and Davis and Haltiwanger (1992) for the US.

<sup>16</sup> See e.g. Brown and Earle (2002).

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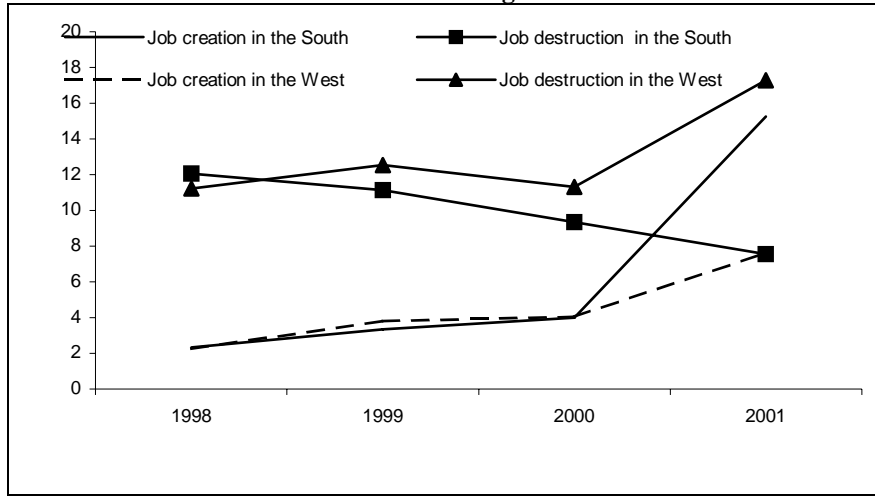
firms with more than 1000 employees. These high turnover rates are partly reflecting higher job creation rates, but mostly significantly higher job destruction rates.

**Private firms see high job turnover, driven more by job creation than job destruction, and therefore also see net employment growth.** As mentioned, the distinction between private, collective, and mixed private-state ownership is not really clear in this dataset, which unfortunately complicates the analysis of ownership type job dynamics. With this caveat in mind, in the manufacturing industry, *private firms* stand out for two reasons: high positive net employment and high job reallocation rates. Moreover, this trend has strengthened over time, as job creation has increased markedly since 1999 while job destruction has fallen somewhat. *State firms* see the lowest levels of job destruction – probably for the same reasons as large firms above –and, surprisingly, job creation has increased over time, while job destruction has actually fallen. This trend, suggesting an increasing resistance to downsizing in the public sector, is problematic in view of the need for restructuring of larger state enterprises. *Collectively owned enterprises*, on the other hand, see significantly higher job reallocation rates than state enterprises, due to higher job destruction rates, and as a result see lower employment gains. The trend for *foreign firms*, finally, is puzzling. In 1998, foreign owned firms saw almost as high rates of job creation, job turnover and net employment gains as private firms, but by 2001, job creation and job destruction had equalized, resulting in no net employment gains.

**Job creation rates have increased in all regions, but the Western region is diverging negatively from other regions.** Traditionally, the Ukrainian economy has been characterized by regional clustering of industries, with the most significant shares of large and state-owned enterprises concentrated to the east, the largest (though still very small) shares of private and foreign enterprises concentrated to the West, and the largest share of small enterprises in the Southern region. Given these different regional profiles, there is substantial – and rising – variation of job flows by regions. Most of new jobs are created in the industrialized Eastern region, though the Southern region accounts for the largest share of relative employment creation (conditional upon its share in employment). Job creation rates increase in all four regions between 1998 and 2001, with highest increase in the South and least significant increase in the Western regions, and only in the Western region was net employment growth negative in 2001. In addition, excess job reallocation increases significantly in 2001, for all regions. Thus, though job turnover is high in both the South and the West, as of 2001, divergent trends in job destruction are resulting in job losses in the West and job gains in the South (figure 2.8). These results are very much consistent with the indications from the household budget survey that total employment rates are falling in the West and rising most rapidly in the South.

**Yet, most of job dynamics occur at the firm level, rather than due to reshuffling between sectors, regions, or firms of different size categories.** In spite of this high inter-sector heterogeneity, a decomposition of sources of job reallocation shows that these dynamics are linked more to differences between firms within sectors, within regions, within type of ownership and within size categories, than between these categories. Thus, even if firms are defined simultaneously by sector, by region and by size – a fairly narrow categorization – more than half of the excess job reallocation is due to shifts between firms in each of these classifications. This is an important result as it suggests that the reshuffling of jobs is not primarily a result of a transition from one type of e.g. sector structure or type of ownership to another but is happening along other characteristics.

**Figure 2.8: Trends in job creation and destruction rates in the Southern and Western regions.**

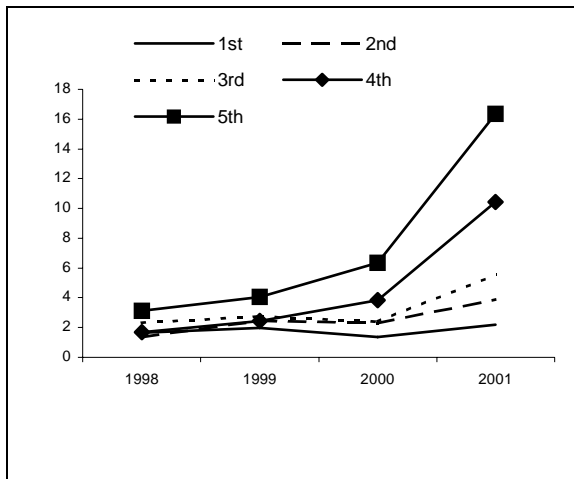


Source: Kupets (2004a)

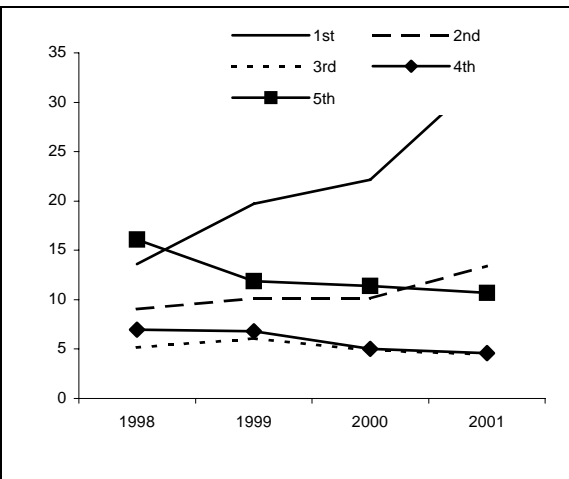
**Low productivity firms are destroying more jobs than others.** Instead, within the sector, region, size and ownership categorizations, high wage, high productivity firms see high job creation rates and positive employment growth, while low wage, low productivity sectors see high job turnover, basically driven by high job destruction. Importantly, these differences have arisen since 1999, and especially in 2001 is there an important divergence with a productivity premium for job creation (figure 2.9). When looking at the *rate of growth* of labor productivity among firms, the relationship with job dynamics is not so linear, however. In fact, the least dynamic sectors – that also account for the highest levels of net job creation – are the median productivity growth firms, while job turnover and excess job reallocation increases towards the extremes. Importantly, firms with low productivity growth have the highest rates of job turnover and churning, and see large net employment losses, due to phenomenally high job destruction rates (figure 2.10). The fact that firms with low productivity levels, or with low productivity growth, are destroying jobs, is in fact very good news as it is evidence of a more creative reallocation of resources, as unproductive jobs are being weeded out.<sup>17</sup>

<sup>17</sup> Indeed, in multivariate analysis of net employment growth, most estimated coefficients on size and ownership type become insignificant once labor productivity and wage effects are controlled for. Moreover, changes in the macroeconomic environment (approximated by year dummies for 2000 and 2001) appear to be a significant external influence on net employment growth of firms.

**Figure 2.9: Trends in job creation, by labor productivity quintile**



**Figure 2.10: Trends in job destruction, by labor productivity growth quintile**



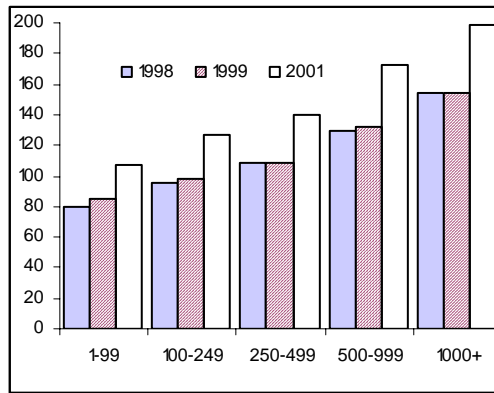
Source: World Bank estimates using HBS data.

**Productivity levels are related to wages and to regional patterns of poverty.** The wage pattern is consistent with regional income differentials. In 2001, overall, wages were highest in the East, followed by the Center and South. The Western regions had the – by far– lowest average wage levels, and this holds for all size classes of enterprises, and for all types of ownership. Unsurprisingly, wages tended to be lower the smaller the size of the enterprise. In the Western region, wages were highest for state firms and foreign firms. This is also true for the Southern and Eastern region, while the Central region, private and especially foreign firms had exceptionally high wage rates. The period 1998-2001 nonetheless saw some wage convergence: wages picked up most in the West, followed by the Center. In the Central region especially, private and foreign firms saw phenomenally high growth rates in wages. In other regions, the pattern was more uneven, but compounded state firms and municipal enterprises saw the smallest average wage increases (charts 1 and 2).

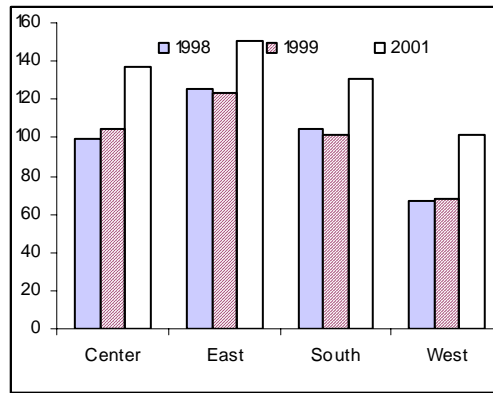
**The pattern of labor productivity mirrors that of wages.** In 2001, labor productivity was higher the larger the firm and was also much higher for private and especially foreign firms than other types of ownership. Labor productivity was highest in the East, followed by the Center and the South. All three remained very close - but the West was much further behind in terms of labor productivity. Importantly, however, labor productivity for private as well as foreign enterprises in the West was higher than for the South. As expected, total labor productivity increased between 1998 and 2001, with a substantial jump between 1999 and 2000 in connection with the jumpstart in economic growth. The trend was evident in all regions but not for all size classes or types of ownership. First, small firms increased their productivity substantially, catching up with other types of firms. And second, state firms and municipal firms, as opposed to other types of ownership, did not see an increase in productivity. It is perhaps surprising that the public ownership category was not obliged to increase labor productivity as other firms did. On the other hand, since wages did not increase either, profitability may have been preserved (charts 3 and 4).

**Average wages by size class of enterprise (chart 1, left) and by region (chart 2, right), for 1998, 1999, and 2001.1/**

**Chart 1**



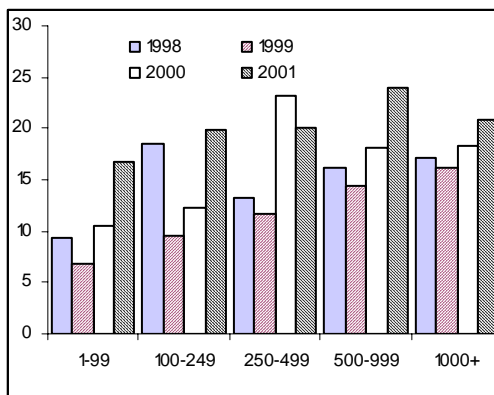
**Chart 2**



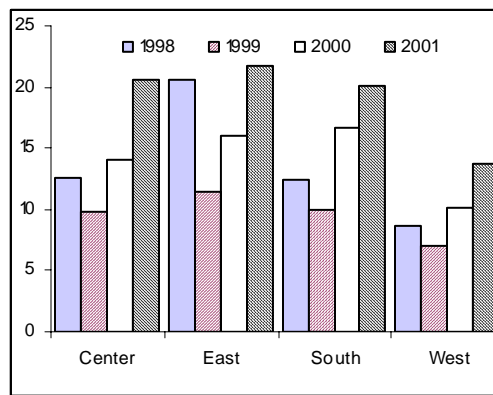
1. No wage data available for 2000.

**Average labor productivity by size class of enterprise (chart 3, left) and by region (chart 4, right), for 1998, 1999, and 2001.1/**

**Chart 3**



**Chart 4**



1. No wage data available for 2000.

**In sum, labor markets are increasingly differentiated and this coincides with the poverty dynamics in the country.** The analysis of labor supply as well as labor demand side suggest that though net employment remains relatively flat, there are important dynamics with very diverse patterns hiding underneath aggregate numbers. While increased dynamics are a positive sign, there is strong evidence that poor people, especially in more remote areas, are not taking part in the process. The jump in job creation and in the persistence of created jobs are good news, and are consistent with the overall reduction in unemployment rates witnessed since 1999, especially the rapid pick-up in 2000 and 2001. Yet, the increase in job turnover is taking place parallel with an increase in unemployment duration. Since the increases in gross job turnover and excess job reallocation are in fact driven by job creation - while job destruction rates are falling - it is likely that those that do find themselves unemployed have a harder time re-entering the labor market, and the turnover in the unemployment pool is in fact going down. Such a polarization is also evident in a divergence between the poorer Western oblasts and others, and in the concentration of job creation to high wage, high productivity firms.

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**Still, certain labor market rigidities need to be addressed to broaden the gains from increased dynamism.** The comparatively low rates of job destruction in some types of firms as well as evidence elsewhere are suggesting that Ukrainian labor demand adapted to transition less by job destruction (which would have resulted in a massive increase in open unemployment) and more by a dramatic fall in real wages, unpaid leave, wage arrears, and deterioration of working conditions and quality of jobs (World Bank, 2004). Though labor resources on the whole are being reallocated to firms with higher productivity, labor hoarding in state firms and large firms is suggesting that there are some obstacles remaining to more flexible markets. One constraint may be the lack of a vibrant private sector to take the place of larger state firms, resulting from a difficult investment climate.<sup>18</sup> A 2001 survey of small enterprises showed that lack of current assets, high taxes and a complicated tax system, together with an overregulated and uncertain regulatory environment, was among the key difficulties facing these firms (BIZPRO, 2001). Another reason for labor hoarding is relatively high firing costs. A recent study showed that in a group of some 85 developed and developing countries, Ukraine surpassed other transition countries in terms of labor regulation. In fact, Ukraine had among the top five highest levels of legal employment protection, and only three Scandinavian countries had more generous social security laws (Botero et al, 2003). However, a recent study on employment creation in the Europe and Central Asia region found that for countries like Ukraine, Russia or Kazakhstan the three most important obstacles perceived by businesses are licensing and operating permits, tax administration, and access to land rather than labor rigidities, suggesting low compliance to such regulations (World Bank, 2005b). A third reason may be that within country mobility is low in Ukraine, hindering the flow of workers. Potential explanations for the unwillingness of workers to find jobs elsewhere are lack of housing, shrinking public transport connections, and the fact that most medical services and social benefits are restricted to the place of residence.

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<sup>18</sup> There is strong evidence from more advanced countries that vibrant job creation in non-agricultural sectors is linked to regulatory reform not only in labor markets but also in product markets. See Nicoletti et al. (2001).