

**ROMANIAN ACADEMY  
INSTITUTE OF NATIONAL ECONOMY**

**PROJECT ON INTERGENERATIONAL EQUITY  
Project coordinator: Institute of Economic Research, Hitotsubashi University,  
Tokyo-Japan**

**Workshop “Population, Labour Market, Pension and Quality of Life in  
Transitional Countries”  
February, 23, 2002**

**DEMOGRAPHIC TRANSITION AND ECONOMIC TRANSITION.  
INTERLINKING AND PARALLELISM.  
THE CASE OF ROMANIA**

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**Bucharest, February 2002**

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## **1. ROMANIA IN THE EUROPEAN AND WORLD CONTEXT. DEMOGRAPHIC AND ECONOMIC BENCHMARKS**

In the last 12 years Romania has undergone very important reforms and restructuring. The former economic and social pattern – based on the single, centralized co-ordination and quasi-totally state-owned property – had to be radically reformed. The objectives of the change have been: competitive economy and markets, various forms of ownership, freedom and democracy. Of course, the sudden change in the economic pattern had a direct and major impact on the social pattern, labour resources management, human resources in general. Following such a “shock” caused by changes, the whole population has tried “to adapt” – but the demographic components, dynamics and intensity of the changes in the demographic and social structures have lacked timing and have been non-typical, even adverse.

In the twelve years when “abnormal and original” actions have prevailed there have been more costs and losses than gains in Romania – no GDP recovery, downward trend of employment, aggravating demographic and economic dependence ratio, severer social problems (Annex 1). In several respects, Romania has lost its 1990 position by many international comparisons. Therefore, the endeavours to be made to meet the requirements for EU integration, one has to add the recovery of (quantitative and qualitative) losses relating to the outcome – GDP per capita, total natural growth, employment rate, etc., and relating to performance – life expectancy at birth, labour productivity, living standard, etc.

### **1.1 Romania’s place after ten years of transition**

Romania is the second country in South-East Europe. Romania has 22.3 million inhabitants, i.e. about 6 percent of Europe’s population and 0.4 percent of the world one. In the period 1950-1990, the country’s population increased by one-third and the pace was higher if compared to other European countries such as Austria, the United Kingdom, Belgium, Portugal, Germany, Italy, Denmark, Sweden, Ireland, Finland. Also, the population dynamics was higher than in other transition countries such as: Hungary, Bulgaria, Czech Republic, Croatia. After 1990, the population number diminished and in the next 11 years the loss was more than three-quarters of a million.

The population decrease will go on, as our country is included among the 39 countries that in the next 50 years will attain a negative balance of population (UNO estimates).

Like in many other countries, the population number diminution is associated with/accompanied by the population ageing. As for Romania, one should also consider the fast diminution in the birth rate: on January 1, 2001, the young of 0-14 years accounted for only three quarters of the 1990 figure.

In connection with the demographic and economic categories, it is to note:

- The working age (15-64 years) population amounted to over 15 million, i.e. about 22 percent of that of the candidate countries<sup>1</sup> and 6.1 percent of that of the EU member countries;

- The employed population is relatively larger in number than that of Austria, Finland and Sweden together, but the level of participation in labour is lower than the EU average;

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<sup>1</sup> Bulgaria, Czech Republic, Estonia, Latvia, Lithuania, Poland, Romania, Slovenia, Slovakia, Hungary

- The number of employees is smaller than in the EU countries and diminishing. While, at the EU level, about 85 percent of the employed are employees, in Romania the proportion in 2000 was only 54 percent.

The above brief quantitative accounts define globally Romania's human potential in Europe and in Central and Eastern Europe.

**Romania is and will be an important country of Europe – by geographic situation and demographic and economic size. Within future united Europe, Romania's population is a major source of labour, whose potential is not yet fully used.**

## **1.2 The performance gap in human resources management**

From the economic and social viewpoint, Romania ranges among Europe's less developed countries. The GDP per capita expressed in USD at the purchasing power parity accounts for one-quarter of the average in the EU countries (in 1999, 6,014 ppp as against about 23,500 USD ppp).

The (forced) industrialization endeavours made after World War II did not bring about the increase in wealth to such an extent to significantly reduce the gaps as against Europe's developed countries: the living standard was further low, very close to the subsistence threshold. After 1990, things got worse and the production decrease, high and persistent inflation, worsening living standard were just a few of the failures of the reform, restructuring and privatization. All had major effects on the intensity and quality of the demographic and demo-economic evolution:

a) the average life expectancy at birth reached the maximum level of 69.82 years between 1976-1978 and maintained itself, with small variations, till 1990-1992. In 1993-1997, there was a diminution to 68.95 years, followed by slight increase, but not reaching the maximum level sooner than 2000. Romania's life expectancy is about 4 years higher than the world average, but about 9 years lower than that of the developed EU countries and 10.7 lower than Japan's (the highest rate in the world);

b) the infant mortality rate is over four times higher than EU indicator and 2.7 lower than the world average, being ranked in the middle position;

c) the demographic dependence rate is slightly higher than the world average, but owing to the fast ageing it may be double in the next fifty years;

d) the labour participation is higher in the EU countries than in Romania. While in such countries, the employment rate is growing - since as in accordance with the main target of the European employment strategy the 2010 average rate is expected to be 7.0 percent - the same indicator is decreasing in Romania.

e) The present structure of employment is outdated. On the one hand, in ten years of transition the share of the jobs in the primary sector increased from 29 percent in 1990 to 41.4 percent in late 2000, while the EU population employed in agriculture accounted for less than 5 percent. On the other hand, the employment in the secondary sector was somehow similar to that of the developed countries and to the EU average (about 26 percent), but without a comparable (from the viewpoint of the prevailing technological generations, labour performance, sort, type and size diversity, goods and services quality etc.) structure (by processing sub-branches). Moreover, the functional/reciprocal driving connections with the other economic sectors, especially with the services are inefficient, even obsolete. In fact, the services sector is deficitary, inadequately developed/diversified;

f) The poor performance in using human resources, caused mostly by two factors: the first one is the low labour price, as the wages received by the Romanian for

equivalent work under comparable conditions are lower than in the EU countries and the second one is the underutilization of the creating and working potential owing to the low pace of using in production the modern processing technology (that allows for turning to good account the knowledge acquired in school years, i.e., higher productivity);

g) The increasing risk of labour unskilling, caused by long unemployment, lack/scarcity of active measures for (re)integration, structural shift of the employed population to low productivity sectors (agriculture, some services), giving up the continuous training inside the companies as well as shorter compulsory schooling (from 10 years in 1989 to 8 years in 1990, and 9 years from 2004-2005). All of them have had a negative impact on the average general and vocational training of labour and Romania has lost the relative advantage (before 1990 and even in the first transition years) as against many European countries and even other countries.

h) The dynamics of renewing the occupational structures and modernizing the labour process by making use of the ICT is slower than in the EU and even other transition countries. The indicators of the ICT equipping such as mobile phones and computers per 1000 inhabitants are 8 times and 25 times, respectively lower than the EU-15 average.

**Box 1**

**Productivity gaps per activity sectors**

According to some comparative studies, the productivity gap between Romania and EU-15 is quite big and in some fields it is widening.

In 1998, the labour productivity in Romania was about 4,708 USD per employed person (57 th in the world). If compared to the above level, the average in the EU member countries was 11.4 times higher and in all Europe it was 6.5 times higher.

The gap in agriculture is the widest ones as the productivity in the EU was 18 times higher than in Romania (1806 USD per person). The comparative values of industry were 12 to 1, and of services 7.3 to 1.

If we consider the national value of the EU countris, i.e., the maximum recorded levels, then the difference between the labour productivity in Romania and that in leading countries is significantly bigger: 31 to 1 if compared to Germany's agriculture productivity, 22 to 1 as against Finland's processing industry and 12 to 1 as against Luxembourg's services (D. Preda, 2001).

The above figures are highly relative as long as there is a major difference between countries in connection with the equivalent labour payment (that holds an important share in gross value added). Leaving aside such "artificial" differences, the productivity difference becomes smaller to some extent. What remains is the difference that is due to less efficient technology, production factor management, comparative cost advantages, market competitiveness etc.

All the gaps are a real challenge to be faced by Romania's economy. The challenge to recover what has been lost since 1990, to intensify the pace with the "runners" of the same level (candidate countries), but mainly to reduce the distance separating us from the "leaders" (EU-15). Catching-up policies are emerging in Romania and the recent economic growth, although quite low, could be the starting point characterized by sound/sustainable economic growth.

## 2. DEMOGRAPHIC TRANSITION AND ECONOMIC TRANSITION CO-DETERMINATION

Since 1990 Romania has witnessed two types of transition:

- a demographic one, that had started several decades ago;
- an economic and social one, that is, from a centrally planned economy to an economic and social system based on competition.

The two types of transition have not evolved in isolation; they have not acted independently from one another. On the contrary, they have influenced one another and one could remember the periods of mutual support, but also the periods of crisis. Thus, the reciprocal influence, interdependence and effects have acted and still do both ways; some have been predictable, some hard to anticipate, even adverse.

The demographic transition before 1990 followed a slow trend, without major changes and generally fitting the classical pattern of many countries. After 1990, dynamics of the demographic phenomena has intensified, transition has become non-typical, showing low birth rates and high mortality rates.

The more convulsive economic transition has generally followed the idea of “learning by doing”. Although the global co-ordinates were the same in all countries (the establishment and functioning of the competitive market relations based of several forms of property, democracy etc.), the implementation has followed specific ways in each Central and South-East European countries. In Romania, the economic and social reform and restructuring have sometimes gone wrong, even regressed, mainly because of the non-correlation of the reform stages and components.

Therefore, one may say that the economic transition in Romania over the period 1990-2001 “adjusted” the (classical) pattern of demographic evolution. In turn, the demographic changes influenced the architecture and timing of the transition and economic and social reform.

But, in spite of the increasing interdependence of the demographic and economic phenomena, one should not ignore the prevailing role of the evolution of the population level and structure in the economic area, as human development is cause and target of the productive economic system and social policy.

Modern society has been unable to find solutions to the present demographic problems through “classical measures”. The demographic transition and its present features are the cause and effect of the human development pace and effectiveness, of the intergeneration transfer quality and content. On the one hand, the population ageing deeply changes the lifespan division (education, work, leisure) and has a major impact on the organization of the economic and social system: the formal and informal education, the level and structure of the aggregated supply of consumption goods and services, the social assistance and security system, adjustment of the cultural pattern, etc. On the other hand, the quicker and quicker technical and technological progress is thus increasing free trade and competition (comparative advantage) in the market, and since “competition means everything, employment means nothing” (Hans Peter Martin, Harold Schuman, 1996), complete deregulation, delocation, globalization etc. diminish in fact to omission the man’s role as a generator of needs and beneficiary of goods and services.

In fact, the economic and social structures must follow the trend in the demographic changes to diminish the setbacks and maximize the advantages. But also one should not ignore the feed-back: the demographic changes imply a reaction to many

and complex interdependences of the fundamental structures of modern society<sup>2</sup>. The evolution of various population categories, the changes in structure are no longer strictly/mainly demographic issues; they are economic problems concerning social organization and sustainable human development.

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<sup>2</sup> Michel Goriaux considers that the Western societies have created by industrialization the conditions for their population's ageing (Goriaux Michel, "Du vieillissement démographique à l'intégration des âge: la révolution de la geritudo", in *Population*, 6/1995, Paris).

### 3. NON-TYPICAL DEMOGRAPHIC TRANSITION IN ROMANIA. CAUSES. EVOLUTION. EFFECTS

#### 3.1. Peculiarities. Global evolutions

The year 1990 was a “break” in Romania’s demographic transition.

##### Box 2

##### GENERAL FEATURES OF THE DEMOGRAPHIC TRANSITION IN ROMANIA

Romania began its demographic transition later than the Northern and Western European Countries (Vladimir Trebici, 1986). The gap of almost one century is due to the delayed economic, social and political development as compared to Western Europe. The diminishing in the mortality rate began between the two World Wars.

Before the 1989 Revolution, the demographic evolution was influenced by:

- The demographic behaviour specific to the war period and to the post-war recovery period, i.e. diminishing fertility rate followed by a high fertility rate (89.5 in 1956)<sup>3</sup>;
- Diminishing mortality rate (from 12.5 in 1950 to 8.1 in 1964)<sup>4</sup> and increasing average life expectancy (from 63.17 in 1956 to 69.82 in 1976-1978)<sup>5</sup>;
- Pro-birth policy initiated in November 1966, that forced the two factors to increase. The birth rate peak was reached in 1967-1968 when the contingent fertility rate<sup>6</sup> was 3.7. As regards mortality rate, it became higher over the same period owing to the number of deaths caused by illegal abortion and the increasing rate of dead-born children<sup>7</sup> to about 18‰ (such a high rate was only attained over the period 1950-1955). Moreover, the infant death rate significantly increased up to 60 deaths to 1000 live births (Annex 2).

After 1990, the demographic evolution has undergone major changes. The people’s freedom to choose the family size, after three decades of pro-birth policy and ban on abortion, has naturally brought about a lower fertility rate to 1.3, i.e. under the level of simple replacement of generations.

On the other hand, the number of deaths per 1000 inhabitants has increased (12.7‰ in 1996). Thus, one could witness non-typical population ageing that goes on at present as well. The age pyramid has been changing by narrowing the base and the apex (Chart 1).

<sup>3</sup> General fertility rate = live births per 1000 women.

<sup>4</sup> Mortality rate = deceased per 1000 inhabitants (legal population with permanent residence).

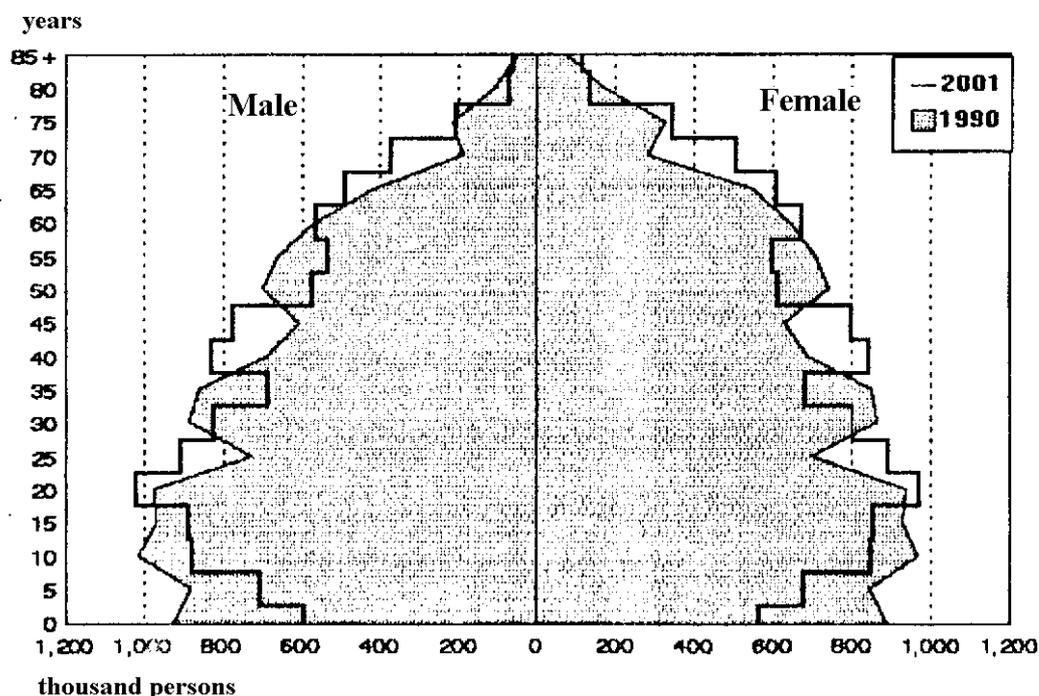
<sup>5</sup> Average life expectancy at birth = average number of years an infant would live (all life) under the conditions of mortality by ages from the reference period.

<sup>6</sup> Total fertility rate = number of children born by a woman during her fertile life.

<sup>7</sup> Dead-born children per 1000 birth/live births and foetal deaths.

Chart 1

Population pyramids, 1990 and 2001, January, 1



Source: NIS data.

The main reason is the economic transition and its outcome:

a) Dramatic diminution in the living standard

- In 2000, the purchasing power of the average wage was about one-half that of 1990.

- In the structure of the household money expenditure, the share of the amounts for food (over one-third in 2000) has constantly increased and the expenditure on the (worsening) health recovery has diminished<sup>8</sup>. The expenditure on medicines and health care have accounted for only 2.5 percent of total average consumption expenditure made by one household<sup>9</sup>.

- Increasing poverty, both as incidence and as extent. While at the beginning of the period at issue, the number of the poor in Romania was estimated to be less than 900 thou. people, in 1998 over 7.5 million people (33.8 percent of the whole population)

<sup>8</sup> Most people feed themselves relatively more poorly than in 1990; the small current income and the chaotic price policy have oriented the people towards imbalanced feeding, based on basic products that have been unable to provide the minimum quantitative and especially qualitative share of nutrition components and vitamins required by healthy nourishing.

<sup>9</sup> According to the official statistics, the 1999 share of the amount allocated to medicines and health care in total consumption expenditure per type of household accounted for: 0.9 percent by the peasants' families, 1.4 percent by the families of the unemployed, 1.9 percent by the families of the employed and 3.4 percent by the pensioners' families. As absolute amount it represented about USD 3 of almost USD 124 spent on the average every month by a household for consumption.

lived in poverty of which 2.6 million lived in extreme poverty<sup>10</sup>. The FGT 2 index grew and in 1998 it exceeded 3.5 percent<sup>11</sup> (WB, NCS, 1999).

b) The employment precarization, that is, higher instability of jobs and, consequently, of incomes, no prospects (along with phenomena associated to the migration of the youth), lower propensity for an organized family life, etc.

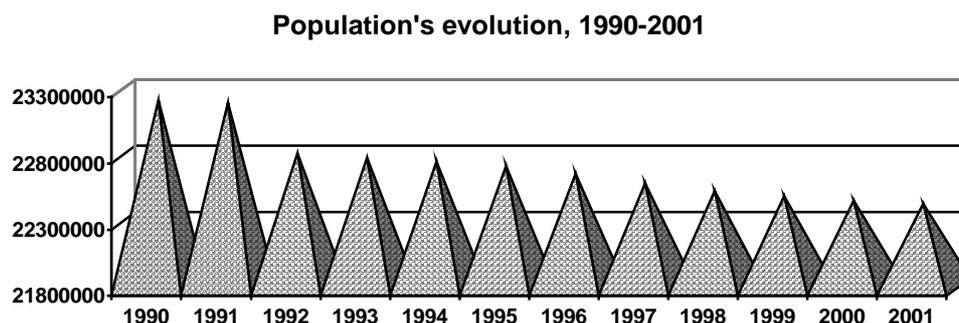
c) The functional inability of the new structures to promote effective social security and assistance services (low budget for social insurance, for the unemployment fund, poor management of the health insurance fund, etc.).

d) Inconsistency of economic and social policy, which affects demographic evolution, mainly the dependent groups (children and pensioners)<sup>12</sup>.

Even the mere listing of the economic transition effects on the demographic evolution shows the complex interdependence and mainly the difficulty to manage negative and/or adverse effects. The net effect ( $\pm$ ) on Romania's population can be shown by the evolution of the total number of inhabitants and the dynamics and direction of total growth, respectively.

Thus, Romania's population continuously diminished in ten years from 23.2 million in 1990 to 22.4 million in 2001, i.e. by 781 thou. people (Chart 2).

Chart 2



Source: NIS data.

Over the same period, the main reasons for the population diminution in number were the migratory balance and natural growth:

a) Migration was a permanent factor of adjustment of the total population size, higher in 1990 and 1991 and lower over the next period. While in the first two years of

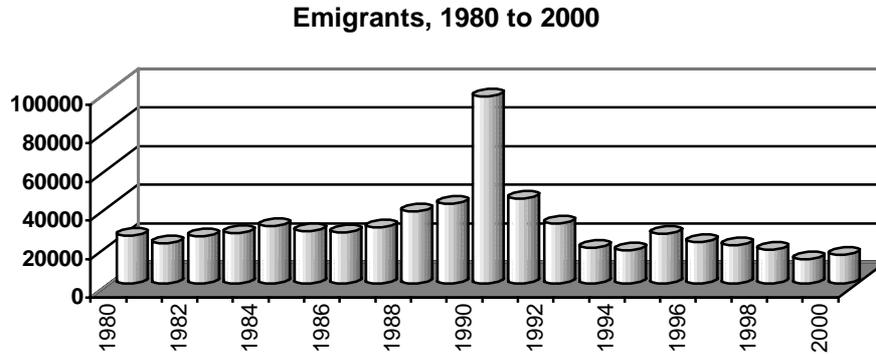
<sup>10</sup> Poverty rate = the share of population making consumption expenses less than 60 percent of the average consumption expenditure on equivalent adult, as found out in 1995; equivalent adult = set on an equivalence scale based on the food requirement expressed in calories estimated by the Romanian specialists for our country's population. extreme poverty rate = the share of population making consumption expenses less than 40 percent of the average consumption expenditure on equivalent adult, as found out in 1995.

<sup>11</sup> P2 index, or Foster-Sreer-Thorbecke Index ( of order 2).

<sup>12</sup> An example in this respect is poor correlation, in fact de-correlation, of income taxation with the policy for the targeted allocation of social funds. Although at an average level among the European countries, the income taxation in Romania is hardly borne both by the employer and by the employee. Moreover, the inefficient utilisation of the social funds leads to "an agreement" between the employer and the employee to be partially or totally paid on the black market, as taking the risk of minimal insurance/non-insurance (health, pension, etc.) is less costly for both.

the period the population's diminution in number was exclusively caused by the migration abroad from 1992, the immigration size diminished significantly, i.e. from a peak of about 97 thou. Romanian citizens who sought residence abroad to less than 12.6 thou. in 1999 (Chart 3).

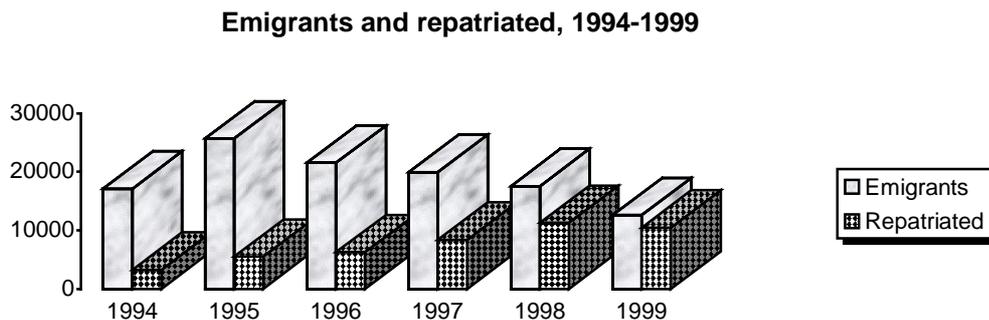
Chart 3



Source: NIS data.

If we take into account the migratory balance, then the negative effect on the dynamics of total population was lower. It is worth mentioning that it is the balance between the emigrants and repatriated individuals we refer to<sup>13</sup>. The above balance diminished from about 15 thou. people in 1994 to about 2000 people in 1999 (Chart 4).

Chart 4



Source: NIS data.

<sup>13</sup> As there is no immigration law, Romania's official statistics could not reveal the size and evolution of immigration. Not intending to make any assessment concerning the number of persons which could be included in this category and live in Romania, we may say that their number has increased lately.

**Box 3****Size of emigration**

The annual average emigration rate from Romania over the period 1990-2000 was 1.3 persons per 1000 inhabitants, close to the 1980-1989 rate. Considering the world and European average rate of total migration, Romania's migration rate does not seem to be an alarming one. The highest migration rate was attained in 1990 – 4.2 percent. After that outgoing “peak” the situation calmed down, the number of emigrants diminished to half, and the emigration rate almost equalled the 1989 rate.

A reverse evolution occurred in the case of repatriation. The number of repatriates rose significantly, from 3,304 people in 1994 to 10,467 people in 1999. Many of them still have double citizenship, some start up businesses in Romania, and others only spend some of their money earned abroad. In the last years, the repatriates have been “absorbing” an increasing part of the negative effect of emigration on total population; the repatriates/emigrants proportion was 64 percent in 1998 and over 83 percent in 1999.

(Gheorghe Zaman, Valentina Vasile, 2000)

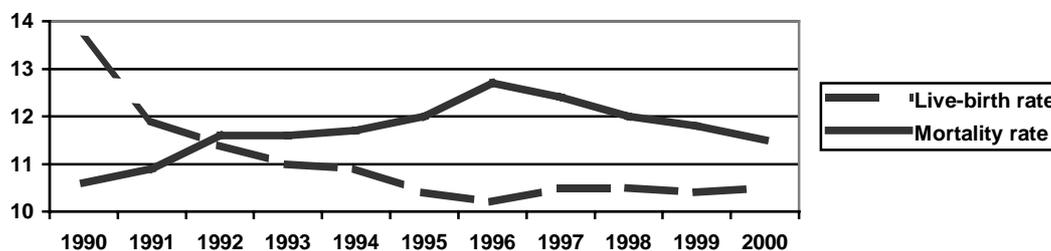
b) The decreasing – and since 1992, negative – natural growth rate brought about a more significant decrease in Romania's population. The 1990-1996 natural growth rate was practically free-falling. The year 1996 witnessed the most significant decrease in population number (-74.3 thou. people), while the natural diminution was 2.8 times higher than the migratory one.

The non-typical character of the demographic transition is clearly defined, if we consider the components of the natural growth in their evolution.

The birth rate diminished from about 315 thou. live births to 235 thou. by the end of the period, while mortality rate increased from 274 thou. people to about 265 thou. Therefore, the low natural growth consisted of the divergent evolution of birth rate and mortality rate through higher dynamics than those of the countries characterized by the classical demographic transition. Romania's low natural growth rate does not reflect the transition to a modern reproduction system based on/supported by economic growth and increasing welfare, but on the contrary it is the result of the living conditions precarization and of the economic and social setback (Chart 5).

Chart 5

**Live-birth rate and mortality rate (per 1000 inhabitants)**

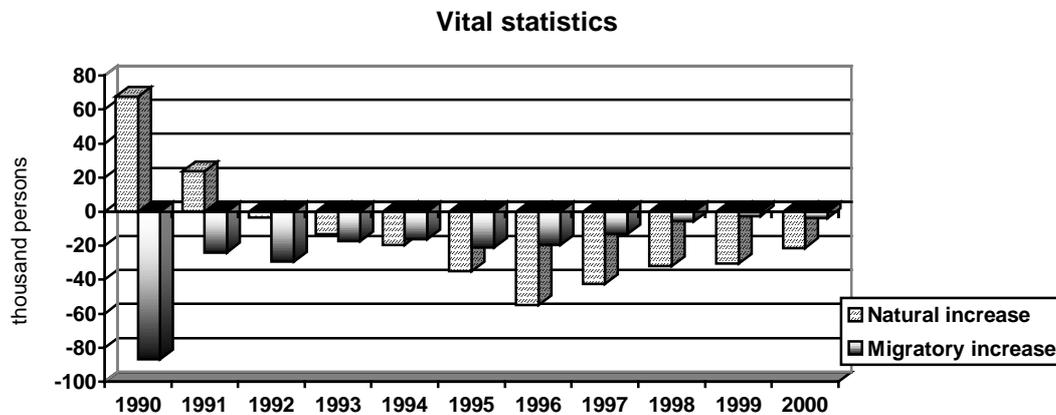


Source: NIS data.

In conclusion, over the period 1990-2000 Romania's population diminished at rates per 1000 inhabitants ranging between 0.02 in 1991 and 3.4 in 1996. The total net loss amounted to 400.5 thou. people, of which about 40 percent was caused by negative

natural growth. While before 1993 the net population loss had been caused by the migratory growth, from 1994 the “responsibility” lay to an increasing extent with the negative natural growth (Chart 6 and Annex 3).

Chart 6



Source: NIS data

By gender, the demographic indicators favoured women:

- there was a growing feminization trend of Romania’s population, as the women’s share grew from 50.7 percent in 1990 to 51.1 percent in 2000. The masculinity ratio on January 1, 2001 was 96 males to 100 females; for several decades more males than females have been born but the ratio has changed at maturity. The gender gap has increased after the age of 45-50 (Annex 4);

- the average life span has been longer with women and its dynamics has been positive; in ten years, the average life span of females increased by one year (from 72.65 years in 1988-1990 to 73.67 years in 1997-1998, and the males’ life span diminished by 6 month (from 66.56 years to 66.05 years)(Annex 5);

- the negative natural growth of males occurred in 1992, while the females’ one occurred two years later and accounted for smaller figures. Over the entire period, the female population diminished by 3.7 thou. people, while the male population by 157.3 persons, the intensity of the phenomenon being 45 times higher. In 2000 alone, mainly due to the males’ overmortality, the negative natural growth was 2.6 times higher with the male population than with the female one;

- the female migration was (except 1992) higher than the male migration; of total emigrants in 1990, 52.2 percent were women, and in 2000 the figure was 53.9 percent. Most of the women who left the country amounted to 14,197, i.e. 55.3 percent of total emigrants (Annex 6).

Considering the two averages of the above ten-year period, the population evolution was different. The major demographic phenomena over the period 1990-2000 were:

- Low growth in urban population, by 0.5 p.p., i.e. from 54.3 percent in 1990 to 54.8 percent in 1999.

- The 1990 natural growth in both areas was positive (+57.6 thou. people in urban area and +10 thou. people in rural area while in 2000 , the rural figure was negative and exceeded by far the urban one (- 0.2 thou. people in urban area and – 21.1 thou in rural area).

- The migratory growth, negative in rural area in 1990 (-555.7 thou. in rural area and +469.0 thou. in urban area), reversed in 2000, i.e. positive in rural area (34 thou.) and negative in urban area (-37.7 thou.). The change took place in 1997 when the urban-rural flow exceeded the share of the other migratory flows; it is to note a dramatic “fall” in the proportion of the rural-urban flow from 9-10 people per 1000 inhabitants in 1991-1992 to less than 5 people in 1998 (Annex 7).

**Box 4**

**The exodus of Romania’s population to urban area is no longer attractive**

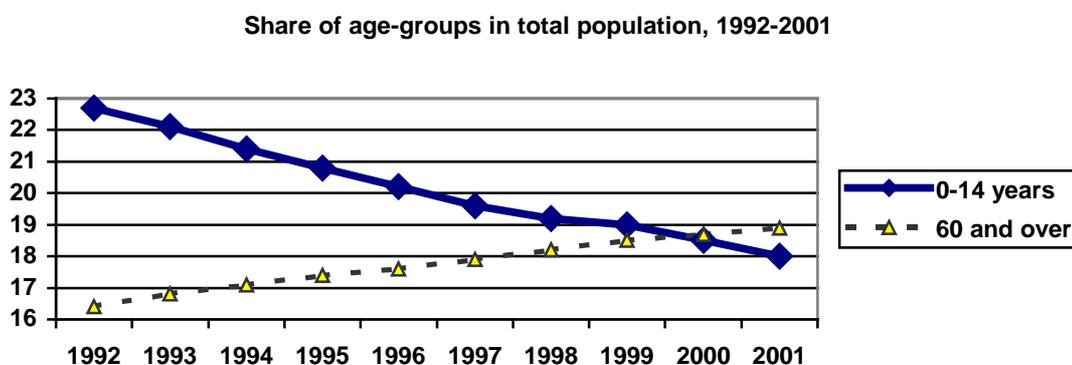
The worsening economic problems and the diminution in the purchasing power to half caused that many town people settled (returned) to rural area where the cost of life was smaller and the resources for internal household consumption were more (by subsistence farming on the land around the homes).

From the demographical point of view, in the last four years there has been a negative balance of the rural-urban migration. The exodus to urban area, that had begun 30 years before, diminished significantly. At present, less than 60 thou. people leave every year countryside and come to town and over 85 thou. return to countryside. While most of the people who leave for town are young, most of those who come (return) to countryside are pensioners or discouraged unemployed people of over 50 years.

**3.2. Shifts in the age structure. Demographic dependence rates**

The age structure in Romania proves the population’s ageing. The long diminution in the natality rate has caused the absolute and relative diminution of the young population (0-14 years) in number. On January 1, 2000 it was the first time in the last four decades that the elderly exceeded in number and as percentage the young people. Moreover, there has been a marked trend of growth in the elderly contingent as against the young contingent. While the 1999 difference between the young (0-14 years) and the elderly (60 years and over) was 111.7 thou. people in favour of the young, in 2000 the population of 60 years and over was larger in number by 36.8 thou. people, and in 2001 by 187.2 thou. The most interesting dynamics was shown by the 0-14 years segment whose share diminished by 4.7 p.p., i.e. about 2 times against the other age groups (Chart 7 and Annex 8).

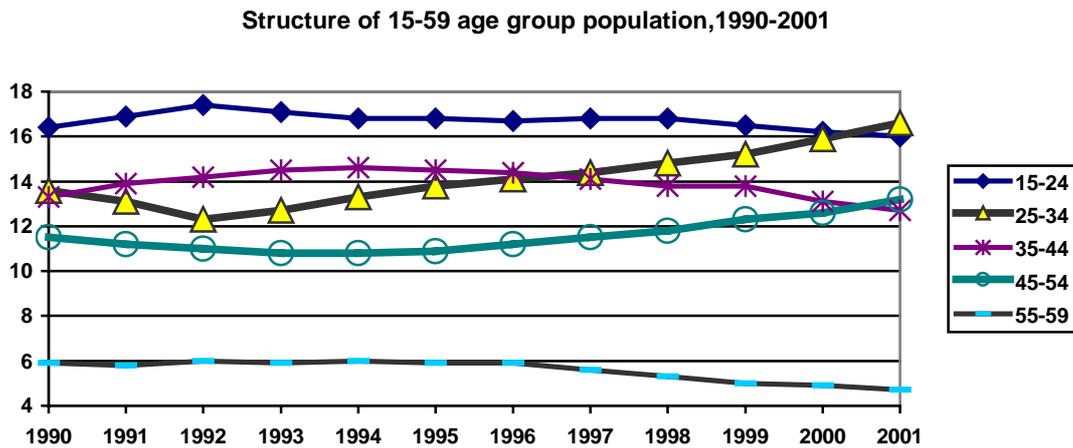
Chart 7



Source: NIS data.

The adult population grew constantly, both absolutely and relatively. As against 1990, on January 1, 2000 there were 48.8 thou. more people in the 15-59 age group, i.e. an increasing share in total population by 2.3 p.p. (from 60.8 percent to 63.1 percent). Regarding the age subgroups of the adult population there was a higher share of the 25-30 and 45-54 years old people (Chart 8).

Chart 8



Source: NIS data

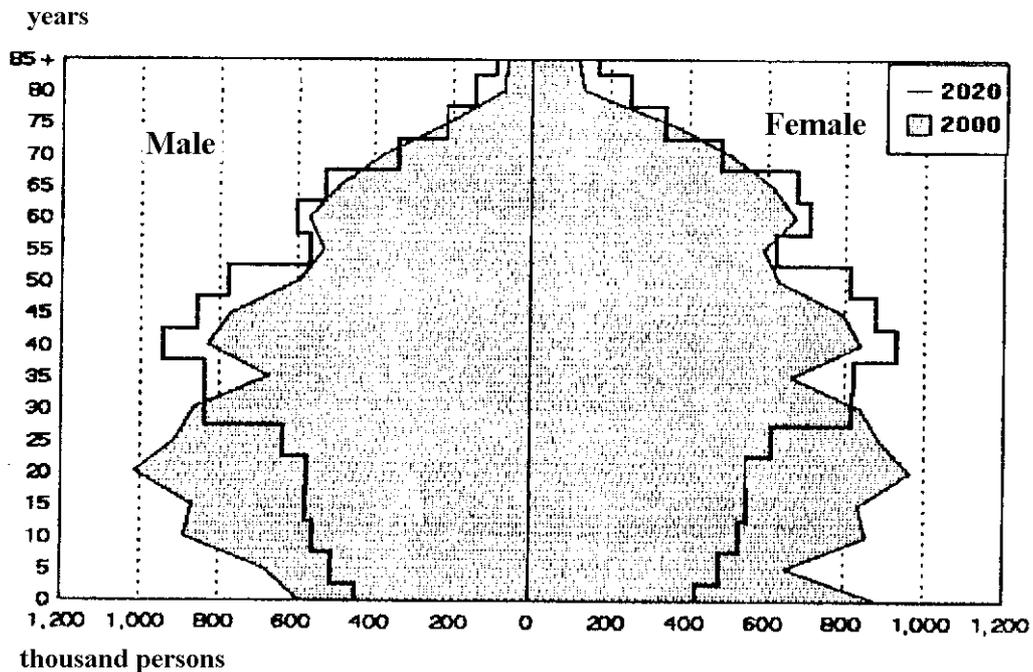
That growth was the effect of the forced pro-birth policy of the 1960's and of the higher natality rate after World War II.

By areas, one may notice increased ageing of rural population, the share of the elderly being 1.4 higher than that in the urban area. The difference by gender within the older population was higher in rural areas and increased along with the age. The very old persons were mainly represented by women, and especially by those living in rural area. For example, on January 1, 2001, the women of 80 years and over accounted for 2.3 percent of total population as against 1.3 percent men; the share of very old women was 3 percent in rural area and 1.8 percent in urban area.

Imbalanced demographic evolution of the above kind could decisively influence the economic dynamics, thus causing higher social troubles. For example, on the 2020 horizon, the most significant diminution occurred in the 10-24 age group, the old adult (over 50) contingent and the "young" elderly (60-74 years) contingent increase in total population. The precarious social assistance and health care system and the large number of pensioners' families under the poverty threshold make the prospects for a longer life less probable, i.e. significant increase in the number of the "old" elderly (over 75 years). The age pyramid on the 2020 horizon will have very narrow base and a relatively thin apex, as the inconsistency of the demographic structures with the probable evolutions in the economy may cause a lasting poor social condition of the population (Chart 9).

Chart 9

### Population pyramids, 2000 and 2020



Source : NIS data

Over the period 1990-2000, the **average age** of Romania's population **increased continuously**, from under 35 years at the beginning of the period to 37.3 years on January 1, 2000.

In 2001, the females' average age was by 2.5 years higher than the males' one; the more aged rural population was by 2.4 years older on the average than the urban one, mainly owing to the rural female population (Annex 9). The figures point out the two above-mentioned demographic phenomena – the population's ageing and the diminishing replacement rate.

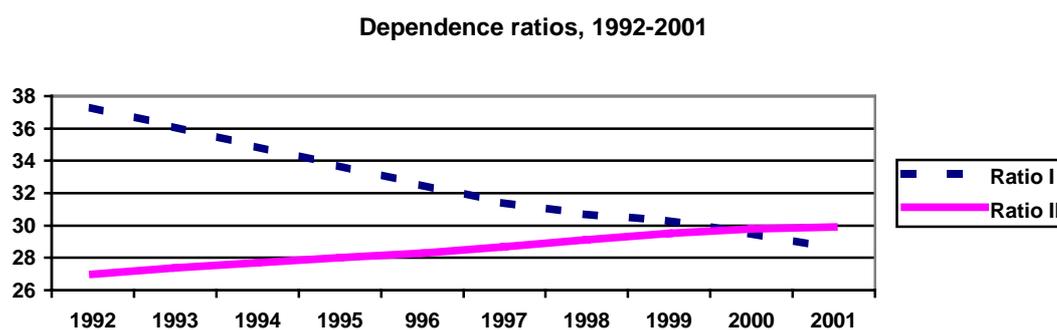
Consequently, there was a higher total dependence ratio<sup>14</sup> (about 60 percent on the average in the last 10 years). What worries is that the slight decrease in that ratio of about 65 young and old people to 100 working age adult (15-59 years) people in 1990 and to 59 in 2001 was caused by the lower share of the young. The diminution in total rate by 6 people represented the net balance between the diminishing dependence rate of the young<sup>15</sup> by 9 persons of 0-14 years to 100 persons of 15-59 years and the growing dependence rate of the elderly<sup>16</sup> by 3 persons (Chart 10).

<sup>14</sup> Total dependence ratio = number of young (0-14 years) and old (60 and over) people to 100 working age (15-59 years) people.

<sup>15</sup> Young dependence ratio (rate II)= number of the young (0-14 years) to 100 persons of 15-59 years.

<sup>16</sup> Elderly dependence rate (rate III)=number of the elderly (60 years and over) to 100 persons of 15-59 years.

Chart 10



Source: NIS data.

The faster diminution in the young population number as compared to the slower pace of increase in the elderly population number brought about an increasing ageing rate from 65 elderly people to 100 young people in 1990 and 105 in 2001.

The effects of the ageing on the economic and social environment and on the future demographic evolution will intensify from 2005 on, when the working age (15-59) contingents are to include the “less numerous” generations born after 1990.

The liberalization of the “democratic behaviour” (free abortion, family planning, etc.), the increasing migration after 1990 and the economy’s restructuring and privatization have caused a **major quantitative and qualitative shift in the population number and structure from the territorial viewpoint.**

On January 1, 2001, the largest share of the young was in the north-east of Romania (over 20.8 percent) and the smallest one in Bucharest (13.7 percent). The potentially “young” districts will be Bistrița-Năsăud, Botoșani, Suceava and Vaslui – the share of the young is over 21 percent and the birth rate is the highest in Romania. The most “aged” areas, with over half of the population being 60 years and over, are in the south (21 percent) and south-west (20.9 percent). In such areas there are districts having 22 percent aged population – Buzău, Dolj, Giurgiu, Teleorman, but also districts having 16 percent people of 60 years and over – Constanța, Brașov, Maramureș and Satu Mare.

Finally, the adult population segment varies between 67.3 percent in Bucharest area and 61 percent in the northeast area.

The above demographic features by area and district raise major economic and social problems. The demographic dependence ratio “adjusts” the direction and extent of the economic reform and restructuring at the local level: the range and size of production, the variety of material and spiritual goods, the local policy for health care, social assistance and security, the amount and destination of the budgetary funds, the supply of formal and informal education, etc.

## 4. ROMANIA'S LABOUR FORCE POTENTIAL AND ECONOMIC GROWTH

### 4.1. The potential labour supply – A factor of economic growth and sustainable human development

The economic reform and restructuring and the transition to the functional competitive economy unavoidably cause quantitative shifts but mostly structural and qualitative ones in the labour demand.

In its turn, the labour supply is subject to demographic, economic, educational, social-psychological, social, institutional influence, etc,

The balancing of the labour demand and supply ratio (mainly in relation to the structure and qualitative features), and the functional links between the demographic supply and the economic system demand is a present challenge to the Romanian society. The high efficiency and full utilization of the labour potential and the adaptation of the structures in accordance with the training level, skills and professions, etc. are major requirements of the reform taking place in Romania during the transition. The Community acquis concerning the labour market, the European social model and the European policy for full employment add to the general framework relating to labour market policy in Romania.

Romania's labour resources could cover the labour needs of the production and services system. On January 1, 2000 the labour resources of our country amounted to 13.4 million people of which 72.1 percent were active and 64.6 percent employed. Therefore, about 43 percent of Romania's population were involved in the economic activity (Chart 11).

Chart 11

#### Population's distribution by economic activity participation, 2001, January 1

Total population 22430.5					Thou.persons
Labour resources 13358.4				Other	9072.1
Civilian active population 9636.4				Other(*)	3722.0
Civilian employment 8629.3			Unemployed persons	1007.1	
Employees 4646.3		Other categories			
		3983.0			
Agriculture	Industry	Construction	Services		
168.8	1913.0	313.5	2251.0		

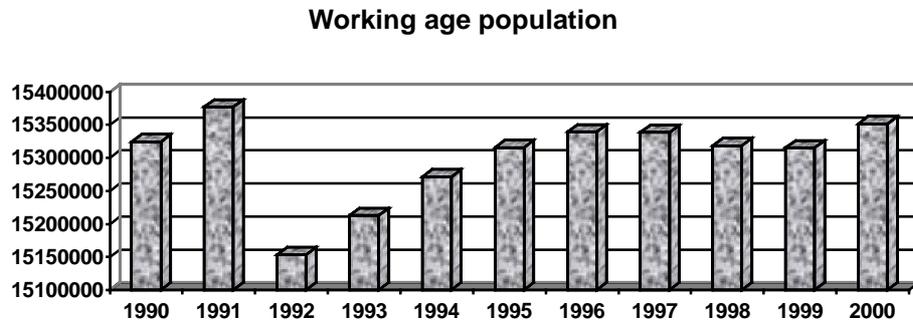
(\*) Population in training activities and other working age population

Source: NIS data

The working age (15-64 years) population – the basic source of active population – followed an upward trend until early 1990's and then, over the entire transition period, it was relatively stationary. In fact, this kind of population generally reiterated the total population movement, but with a 15- year delay.

Although there was a relatively important demographic decline after 1991, the working age population evolved slowly and supported the high level of potential labour supply.

Chart 12

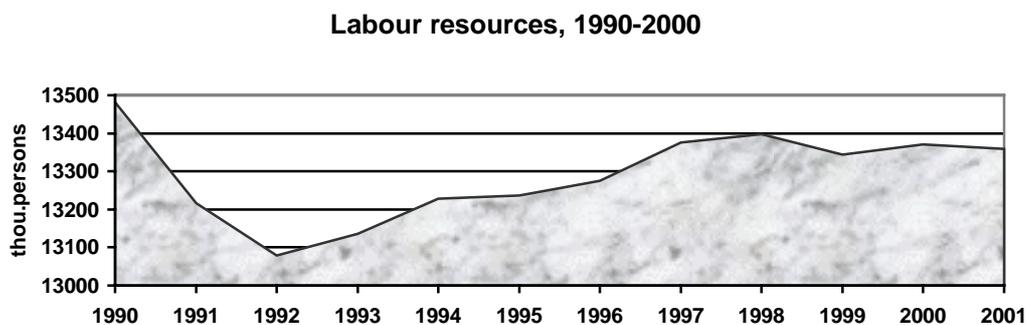


Source: NIS data.

#### 4.2. Propensity towards activity

Practically, a much larger part of the country’s population is involved in the economic, social, educational, cultural activity, etc.: about 93 percent of the work population<sup>17</sup> and part of the population under or over the working age (Chart 13).

Chart 13



Source: NIS data

Today’s active population mainly consists of the generations that emerged after World War II and up to early 1980’s.

The effects of the long pro-birth policy implemented by the former regime (from 1966) are still felt on the labour market, especially in relation to the 30-40 age group. Some specialists think that it is an advantage since it “postpones” the demographic

<sup>17</sup> Working age population, able to work = working age population – permanently disabled persons – pensioners of working age but not working.

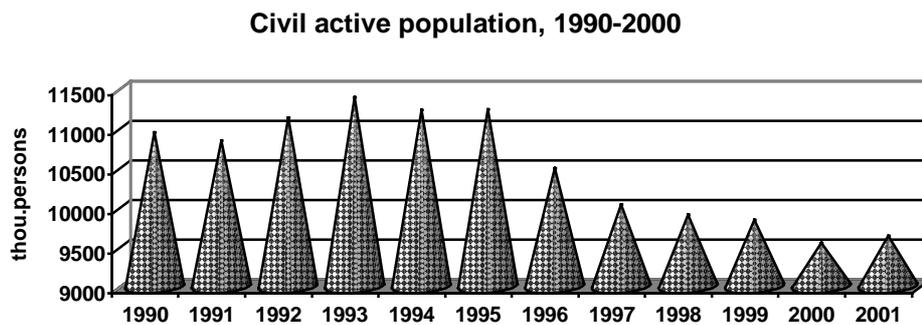
ageing of labour force and, thus, Romania benefits from a labour potential able to support the difficult economic reform and restructuring, to develop SME's, to promote sound business based on entrepreneurship and competence. The “young” adult (20-45 years) population is relatively more flexible than the “old” adult (over 45 years) people in relation to the changes in the economic environment – propensity towards the technical advance, ICT promotion and entrepreneurship being potential stimulating factors to work.

But there are some other contrary opinions that view the presence of the baby-boom generations in the active population contingent as a major tensioning factor on the labour market that exerts pressure on the unemployment rate and a risk to supply the black labour market (and implicitly, to support the underground economy).

Without entertaining either of these foreign opinions, one should point out that sustainable economic development implies a combined and complex policy based on the interconnections between the economic area and the social one in order to bring about human development. The policy pursuing “production for its own sake, directed to accumulation of wealth at any expense” has already failed. Generally, in the last decades, the world has increased its wealth (represented by volume indicators such as the GDP, etc.), but at the same time it has witnessed increasing pauperization and, in general, worsening social problems. In Romania, the current problems, but mainly the future are alarming – potential (of resources, of labour) (still) exists along with demand for goods and services, for investment (in infrastructure, modernization, housing and industrial construction) although difficult to meet. During the transition little has been to correlate resources and needs, to eliminate the losses caused by inefficient allocation and to achieve the global co-ordination (in all activity fields: economic, social, etc.).

The civilian active population (growing until 1992-1993), after a relative stagnation, diminished after 1995 (Chart 14).

Chart 14



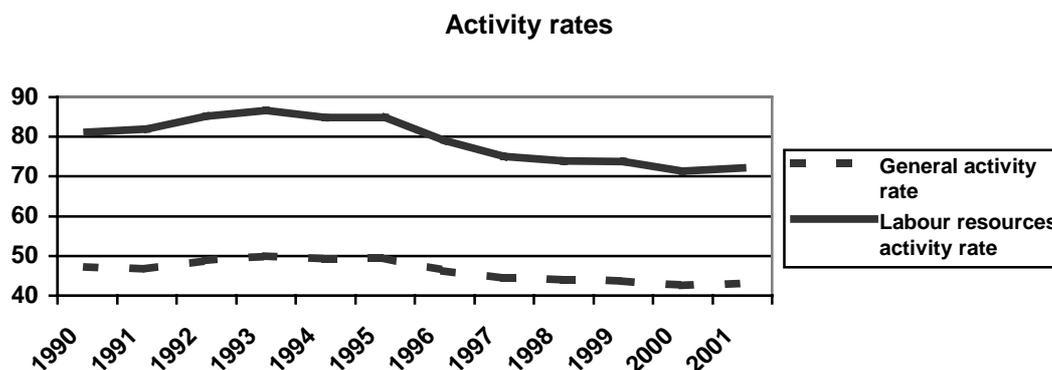
Source: NIS data.

This evolution may be explained by the dynamics of the above-mentioned demographic phenomena and the increase in number of the working age population undergoing training (secondary school pupils, students, etc.).

The activity rate<sup>18</sup> - as qualitative tools to measure the workforce potential – allow for presenting the national peculiarities relating to the participation in labour. The Romanian “model” is characterized by:

a) A high general activity rate,<sup>19</sup> rising till 1993, and then declining (Chart 15).

Chart 15



Source: NIS data

The employment model of the former regime brought about a pro-activity behaviour, including the women. When graduating school, the young had their job secured,<sup>20</sup> "traditionally" both parents had a job, even in rural areas (women worked on the co-operative farms). After 1990, women remained on the labour market, some for professional satisfaction, for a career, other for money reasons - small incomes.

b) The young's diminishing participation in the labour market, i.e. the 14 to 30 age groups which have delayed their coming into the labour market since:

- they may carry on their education (financial support from their parents, expansion of private higher education system and extension of paid education to the state universities);

- the opportunity to find jobs soon after graduation is low (only the gifted young people can find jobs during the higher education period or soon after graduation; most of them leave the country - brain-drain and brain-shopping absorb most of them);

- the absence of firm long-term orientation concerning the national economy development is what makes some young people to attend more than one faculty (at the same time or successively), of a different or complementary profile, trying to improve their training level to find a stable and well-paid job, less risky in the context of the inconsistent economic policy concerning the restructuring of some fields, or narrowing or expansion of other.

<sup>18</sup> The activity rates are based on data of the Work Force Balance, census data (1977 and 1992) and data of the survey on household work force (AMIGO) initiated in 1994. Owing to the different methodology used for the above sources, the data are not comparable in themselves. But they have a cognitive function as long as from the structure and trend point of view they reveal phenomena and processes similar as regards the direction, dynamics and intensity.

<sup>19</sup> General activity rate = civilian population/total population. Labour resources activity rate = civilian active population /Labour resources (all figures on January).

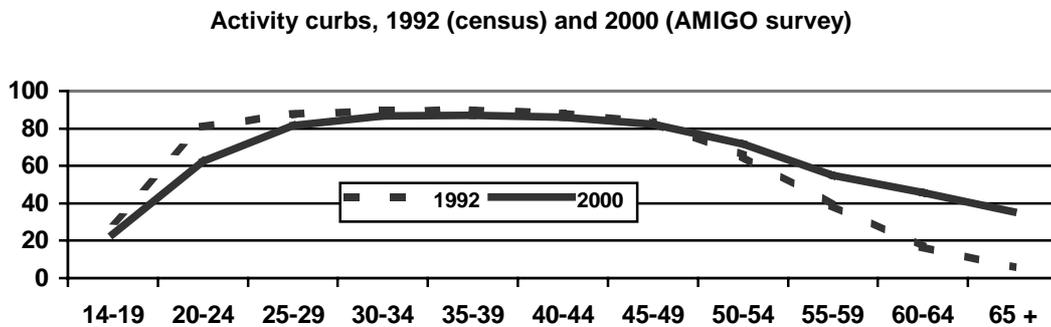
<sup>20</sup> ) In socialism, only severely handicapped persons did not work or people living in hardly accessible (mountainous) area where no co-operative farms could be set up.

c) The increasing rate of participation in labour of the elderly. The reasons are both economic (severe diminution in the purchasing power of the pension incomes, chaotic evolution of the prices of the basic goods and services) and social (inability of the present system of social insurance and assistance to offer opportunities to the elderly to satisfy their needs by means other than incomes from additional work to add to the pensions).

d) Slow diminution in the activity rate of the population having the highest working potential and the highest productivity, efficiency, creativeness.

Owing to such behaviour, the activity curve of age groups flattens because of the lowering level of the most efficient rates and increasing participation in labour slope (Chart 16).

Chart 16



Source: NIS data.

Far from being an advantage to Romania, the level and, especially, dynamics of the activity rate reveal the deep and long crisis confronting the Romanian economy during the transition, the worsening of the purchasing power of the population which has to be active to a very old age to maintain itself, for a modest living or subsistence.

## 5. EMPLOYMENT IN ROMANIA IN THE FIRST TRANSITION DECADE. SIZE. EFFICIENCY

Employment - with its many and inter-correlated dimensions - is not a problem specific only to labour as it is also a constraint and a purpose of all markets, a result of (in)consistency and (non-)correlation of all policies, having an intra- and intergenerational impact. Now, the employment in Romania is an economic, social, cultural and political priority. The economic reform and restructuring, including the privatisation, do not mean only unemployment and liquidation of large companies, but also bringing in technical progress, reorganisation, modern management, etc. It means new jobs. Therefore, Romania's general objective, at least in the human resources field, should be the creation of new efficient and well-paid jobs (especially in private companies able to develop) as support for economic recovery and, then, sustainable economic development.

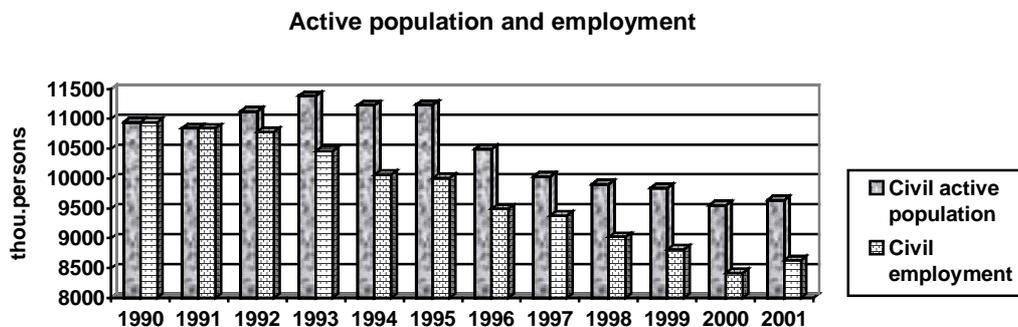
Over the period 1990-2000, there was a major gap between intentions and reality, to the detriment of reality, of practical effects. In fact, in that period there was a deep and long employment crisis.

Fast diminution in the employment was and is influenced by the economy's restructuring, modernisation and privatisation. But the size of that diminution was not the effect of broad and profound qualitative changes to improve the efficiency and productive performance of the economy, but, on the contrary, the relatively chaotic restructuring, preponderantly monetaristic macrostabilizing measures, lack of coherence, correlation and continuity of the economic and social policies promoted by the Government, proved too costly as regards human resources.

### 5.1. Employment shrinkage - Under-utilisation of the available labour resources.

The recession, chronic disequilibrium and diminishing domestic demand caused the decreasing the economy's employment capacity. In 1999, the civilian employed population diminished as against 1990 by 2.4 million people, i.e. about 23 percent (Chart 17).

Chart 17



Source: NIS data.

The continuous employment decreasing ceased in 2000, when, owing to a low economic growth of 1.6 percent, the employed population increased by 210 thou. people.

**5.1.1.** The employment evolved at different speeds and in various directions within the activity branches and fields - in 2000, as against 1990, in most activity fields (forestry, mining and processing industry, constructions, hotel and restaurant business, transport and storage, real estate transactions) it shranked, in the post and telecommunication field it was relatively stationary, and in the trading field, financial, banking and insurance field, public administration, education, electric and thermal power industry, gas and water supply and agriculture it increased (Annex 10).

The yearly trends were oscillating as the structural reform in each activity field followed; the way the employment evolved could not reveal the inter-branch correlation as regards the labour re-allocation. The only evolution that seemed surprising, but quite inefficient to national economy, was the employment in agriculture that over the entire transition period was considered as the relief valve for the disequilibria in other fields. Contrary to any economic efficiency reasons, the people employed in agriculture increased in number and got older. The privatisation/land property reversion caused the return to subsistence agriculture associated with "pseudo-employment"<sup>21</sup>.

**Box 5**

**Employment - A cause of internal migration**

The "work problems" represent one of the reasons of internal migration. The lack of labour demand, increasing unemployment rate in urban area, etc. are responsible for about 9 percent of total internal migration (1999-2000). In both respects (both outgoing and incoming) the highly migrating persons were the employees, i.e. about one half of the 25-34 year-old people. Changing domicile, these categories of population pursue the proximity to the acquired or probable job.

Migration at a smaller distance is increasing and mostly occurs in the economically more developed areas and/or in areas with a higher urban concentration. Thus, there is an increase in the number of areas showing a higher attractiveness for the people born in such areas. In 2000, the south, south-west and west regions were the only to have a positive migration balance.

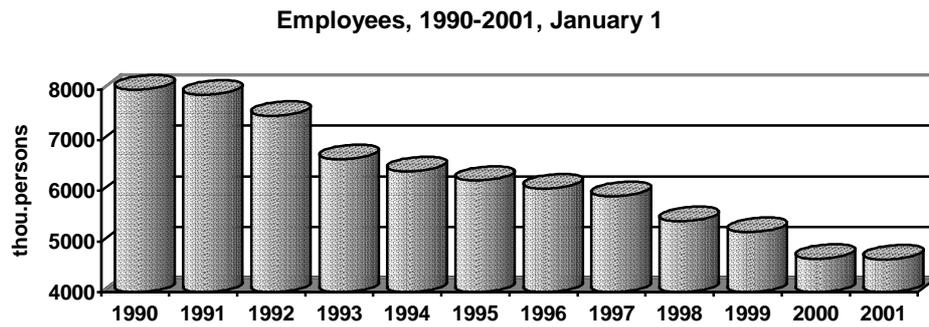
In Bucharest, the same year, the migration balance was negative for the first time. The tense relations on the labour market, high cost of living, poor housing, etc. are just a few of the causes that make the people over 30 years leave Bucharest as they could not find a job. Only the 20-29 years group showed a positive migration balance, i.e. young people who carried on their education (Bucharest is the largest academic centre in Romania) and have the best opportunities to be employed while in school or soon after graduation.

**5.1.2.** The most suggestive illustration of the adverse effects of the reform and restructuring, of the economic policy promoted during the ten years of transition is provided by the evolution of the number of employees (Chart 18).

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<sup>21</sup> Even the statistical system relating to the population employed in agriculture causes wrong assessment of the actual sizing of the effective employment in agriculture. The land is regularly tilled by the elderly who remained in the countryside (mostly, women - 52 percent); attempts were made to employ in agriculture the lay-off from mining, etc. but the outcome was not the expected one.

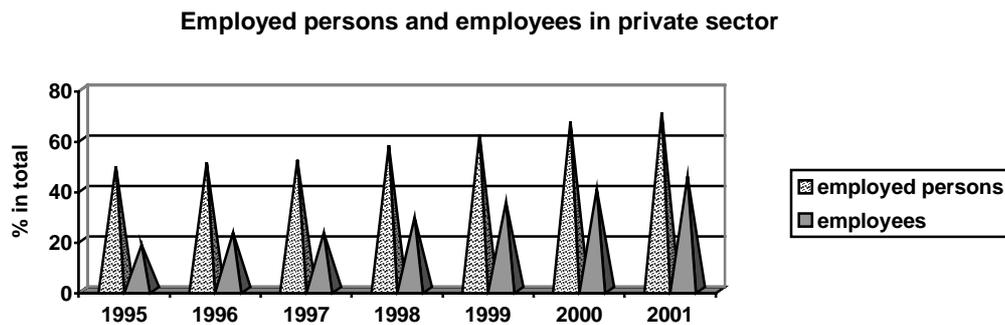
Chart 18



Source: NIS data.

The drastic decrease in the employees' number and share in the employed population stands out as an abnormal, asymmetric processes that causes our moving away from the structures of the developed countries, from the European standards. It is a process with profound and grave/severe economic and social consequences; it is one of the transition traps (S. Pert, 2000). In ten years the total number of employees diminished by 3,533 thou., i.e. 43.3 percent. While in the last year of the period the employment recovered about 200 thou. people, the average number of employees diminished further by another 138 thou. people. Such diminution was due to the employment shifting from public property to the private and mixed property. While in 1990 the quasi-totality of the employed population and employees worked in economic units pertaining to the public sector, in 2001 the private sector accounted for 70.4 percent of the employed and 45 percent of all employees (Chart 19).

Chart 19



Source: NIS data.

**5.1.3. The unemployment** increased in number and as share in the civilian active population from 337.4 thou. persons in 1992 (the first of such statistical records in Romania) to over 1.2 million in 1995; in 2001 the number of the unemployed was

about 1 million people (a month). This category of population had practically existed before 1990, but it had not been recognised officially by the totalitarian regime<sup>22</sup>.

The level and dynamics of the number of the unemployed was oscillating and sensitive to some factors acting inside and outside the labour market, among which: the legal system (mainly the law of unemployment)<sup>23</sup>, the functioning of the Territorial Labour Inspectorates, the information and computer systems to ensure permanent and transparent contact between the job seekers, on the one hand, and the employers and managers of the unemployment fund and records, on the other hand; the changes in the economic environment, that reflected only partially the unemployment level since the black market and the retirement before term "absorbed" part of all lay-off; the system of compensation payment for massive lay-off, initiated as an active measure to stimulate small businesses, became a form of "passive social assistance" that wasted the collected funds; the miscorrelation between the educational system and labour market as generations of young graduates were "dumped" in a shattered market where the labour supply (at a certain education level) met only accidentally an equal demand.

Still there are many other problems. Generally, the present system contradicts the principles on which the system of insurance, equity and solidarity was based. The draft law of employment, now under discussion, is unable to find the elements to stimulate job seeking, creation/maintaining of long-term well-paid jobs. The "fear of unemployment" changes into the "fear of the system incapacity" to temporarily support the laid-off people to find a job. It is the young who face such a risk. Often the unemployed, after a short period of hope/search, give up and enter the category of the discouraged persons that in time lose their skill.

#### **Box 6**

##### **Long-term employment - A calamity of the Romanian society**

In Romania, unemployment, besides inflation, has become a permanent "companion" of reform and restructuring. Initially, of a contingent nature, it has gradually become chronic, especially because of the economy's capacity to overcome the profound and complex crisis. The mostly affected population categories have been first the women and the young, then the laid off people close to retirement age. The long-term unemployment has become a feature of the labour market.

The long-term (over 12 months) unemployment exceeds in proportion the employment less than six months and is further increasing<sup>24</sup>. While in 1998 the short-term unemployment accounted for 41 percent of all temporarily unemployed, the next year the proportion diminished quickly by about 7 p.p. The long-term unemployment is over 40 percent of total. The structural shifting has been caused by the higher share of the unemployed seeking a job for several months: while in 1998 the unemployment for 12-18 months accounted for over two-thirds of the unemployment for over 12 months, in 1999 only half of them were in the same situation, and the balance was included in the group of the long unemployed. In fact, throughout a year alone the share of the people unemployed (and receiving unemployment assistance) for over one year increased 1.5 times, i.e. from 5.8 percent in 1998 to 9 percent in 1999. In 2000 the situation was worsening: the unemployment up to 6 month decreased to 30.3%, but the share of the unemployed persons for more than 24 month increased up to 24%.

<sup>22</sup> Former regime thought that the full employment level had been attained and every citizen able to work had his job secured. In fact, the economy had to face a quite high overemployment level (about 15-20 percent), along with the qualitative underutilization of labour. Moreover, the "technical" unemployment was current practice, as the employees were periodically given unpaid leave.

<sup>23</sup> The credibility of the statistical records of unemployment was the reason of endless debating and arguing the legal provisions concerning the registration procedure, the benefit length of time, etc. caused that a person who had completed the assistance period was automatically eliminated from the record at the time of expiry of the right to benefits (unemployment benefit +allowance); that person might still be on the records of the TLI only on specific demand (which usually did not happen).

<sup>24</sup> Registered unemployed, receiving cash unemployment assistance (unemployment benefit, allowance for vocational integration, compensatory payments and support allowance).

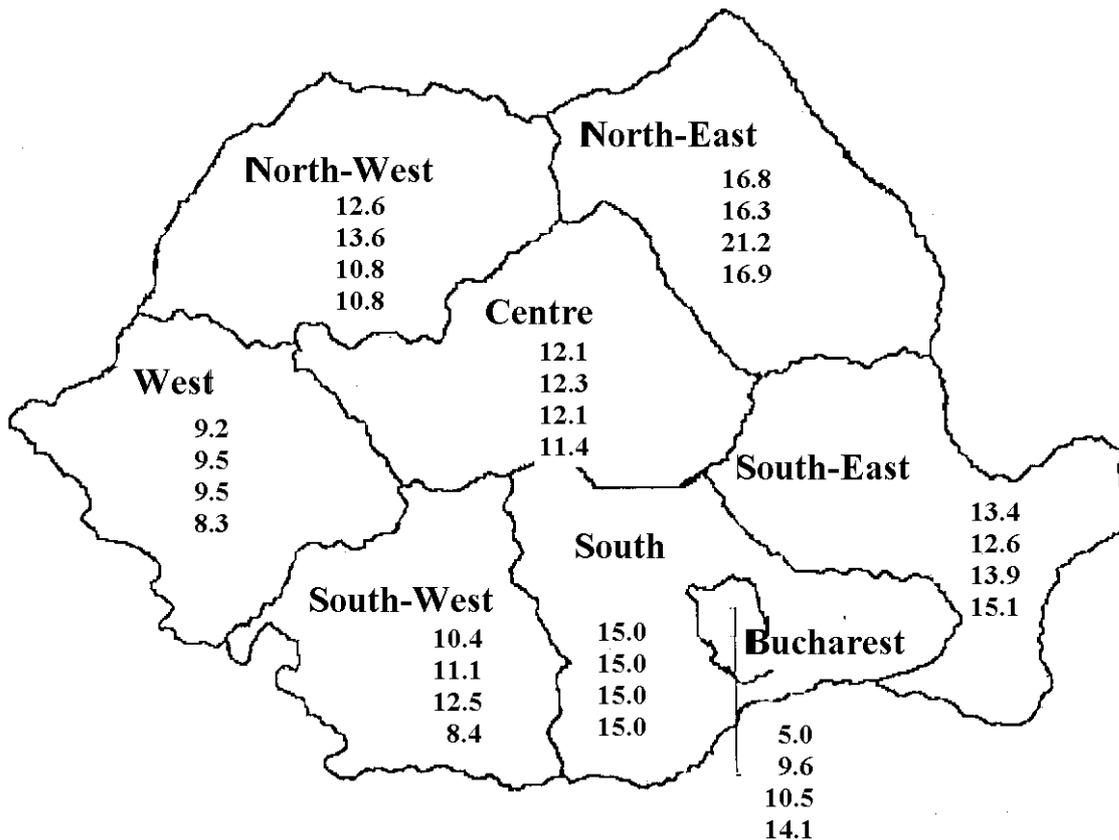
By age groups, there is a higher share of the under 25 people who, once in the labour market, are significantly affected by the economic fluctuations: they cannot find jobs soon, they are the first to be laid off in case of restructuring, etc. They are followed by people of 30-49 years whose length of unemployment depends on both subjective reasons - an adequately paid job, profession changing etc. - and objective reasons - they pertain to professional group tending to vanish from the labour market. The process of professional reintegration is also hindered by the low efficiency of the active re-employment policy, of the re-training supply that, after graduation, seems not to meet the demand.

The number of the discouraged people cannot be ignored, as in 2000 they amounted to 307 thou. people, of which about one-third were young people of 15-24 years and 59 percent were women; of all the discouraged 58.8 percent previously sought a job but could not find one (Annex 11).

**5.1.4. Labour distribution by territory** reveals the concentration of labour resources in the north-east, south and south-east of the country. The areas with the lowest levels are the west and south-east ones (Chart 20).

Chart 20

**Labour forces indicators on statistical regions, 2001, January 1**



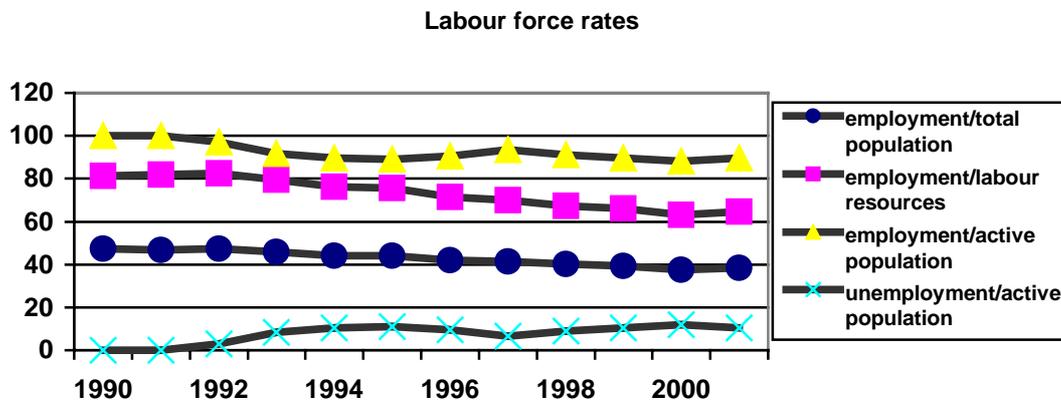
The largest number of the unemployed is in the north-east area (21.2 percent), followed by the south area (15 percent).

The population included in various training/education systems is more numerous in the north-east area (the youngest population), in the south area, south-east area and Bucharest (where most of academic institutions are located).

The differences by area in the distribution of various potentially active population categories could cause troubles on the regional labour markets and internal and external migration.

**5.1.5. The intensity of the participation of the labour force potential to Romania's economic and social life**, measured in employment rates, diminished continuously between the years 1991(1992) and 2000 by 9,7 p.p. as regards total population and 18.2 p.p. as regards the labour resources. In 2001 (January 1st) there was a slight increase in the level of the rates as against the previous year by 1 p.p. as regards the employment rate of total population and by 1.6 p.p. as regards the labour resources (Chart 21).

Chart 21

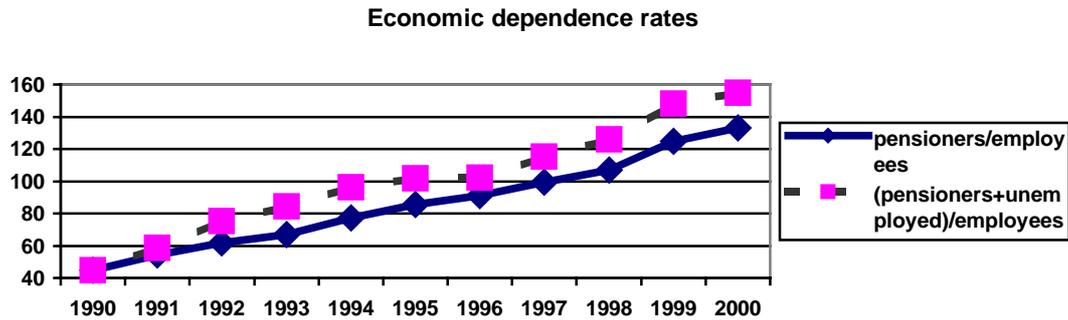


Source: NIS data.

The employment rate of the potentially active population shows the under-utilisation of the people able to work by about 10 percent, which is statistically revealed by the recorded unemployment rate. If compared to the phenomena occurring in the economy and taking into account the very low level of the employment rate (as compared to other countries), the unemployment rate level may be considered as low, much under the expectations. The evolution was highly dynamic over the period 1992-1995 (three times higher) and then declined (from 10.9 percent in 1995 to 6.6 in 1997). Between 1998 and 2001, the unemployment rate was around 8-11 percent.

The global effect of the employment precarization is revealed by the economic dependence rates that are now considerably higher than in 1990 (Chart 22).

Chart 22



Source: NIS data.

*While in 1990, about 2.2 employees ensured the pension of one pensioner, in 2000 one employee supported financially 1.3 pensioners and 0.2 unemployed, i.e. 1.5 assisted persons.*

The year 1995 marked the inflexion point of the general ratio of economic dependence (i.e. one employee is the financial supporter of one assisted person) and from 1998 one employee supported 1 pensioner and about 0.2 unemployed. The economic dependence ratio deteriorated further, and the financial bearability limit was exceeded 2 times in 2000. Using gross average data, the total monthly amount for 1.5 assisted persons (pension + unemployment benefit, in corresponding proportion) exceeded by about one-fourth the total amount of the social insurance + unemployment rates paid in accordance with the law (but such funds were not allotted in their entirety only to such purposes, since, of course, there were other kinds of expenditure, such as the fund management, etc; moreover, the effectiveness of collecting the amounts for such funds was very low, owing to the refusal/impossibility to pay or the exemptions granted by the Government to some economic agents, thus infringing the rules of equity and solidarity and causing a much higher "financial deficit"). The calculations clearly reveal the following:

- On the one hand, the already high social taxes (practically unbearable for the Romanian economy) were not sufficient to support the people entitled to old age allowance or temporary lay-off allowance.

- On the other hand, the social system underwent a profound crisis: the reform components already functioning (pension pillar I and the regulations concerning the unemployed and assimilated ones in force at that time) were not sufficient and the transition "adjustments" till the completion of the reform increased the inequality (e.g., pension correlation); the labour market policies that should have provided equilibrium, dysfunction elimination, etc., practically "attenuated" on short term the inequalities/inadequate management of the market, etc. and had a major impact.

The problem of the economic dependence proportion became more serious (the economic restructuring associated with mass lay-off went on, and the unemployment rate was estimated about 12 percent for February 2002) and seemed unsolvable on short term by "traditional" means (higher protection, additional sources, etc.). Therefore, the qualitative adjustment and the prevalence of active measures are the only viable and potentially efficient solutions. In this context, we may mention: the orientation of the reform and economic restructuring in accordance with the comparative and competitive

advantages of various economic activities along with active protection measures (social agreement signed and observed by the social partners throughout the validity period<sup>25</sup>); durable structural changes in employment by encouraging/stimulating by various methods the free-lancers, self-employed people, micro-businesses, thus increasing the number of contributors to the social funds, determining/improving the economic/demographic dependence etc.

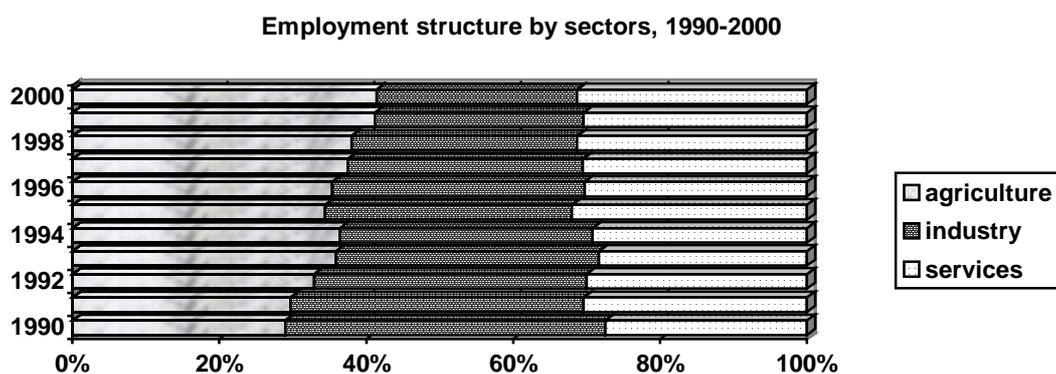
## 5.2. Imbalance– and inefficiency –generating structural changes

In the twelve years of transition, the employment structures underwent major changes, some of them justified by the many forms of ownership, others surprising, even outdated if compared to modern economies. Such extreme cases are: on the one hand, the development of the private sector at a high rate, as its share in GDP was 64.5 percent in 2000, and, on the other hand, the re-agrarization of the employment structure along with continuous diminution in the GDP created by the primary sector, i.e. only 11.4 percent of total GDP in 2000.

Therefore, besides the employment decline, the structural shifts are, by size and especially by effects, factors that increase the transition cost and waste human capital.

**5.2.1.** The employment structure by activity sector underwent major changes. The privatization and restructuring caused diminution in the employment in industry by 16.1 p.p. Services grew by 3.8 p.p. and agriculture by 12.4 p.p. Therefore, in late 2000, the employment in agriculture reached 41.4 percent, 27.3 percent in industry and 31.3 percent in services (Chart 23).

Chart 23



Source: NIS data.

<sup>25</sup> Such agreements and/or collective contracts are concluded in case of reorganisation, privatisation, etc., but usually the new employers do not observe them. Although the employers bind themselves to maintain the jobs - totally or partially -, to gradually restructure the jobs as required by the technical progress and to fill the vacant ones with the existing possibly (re)trained personnel etc., after taking control of the company's activity, they denounce unilaterally the agreements/contracts and resort to lay-off/shut down of departments/parts of the business, even selling.

The above employment structure, inconsistent with the European economy of the 3<sup>rd</sup> millenium is the result of the combined action of several factors:

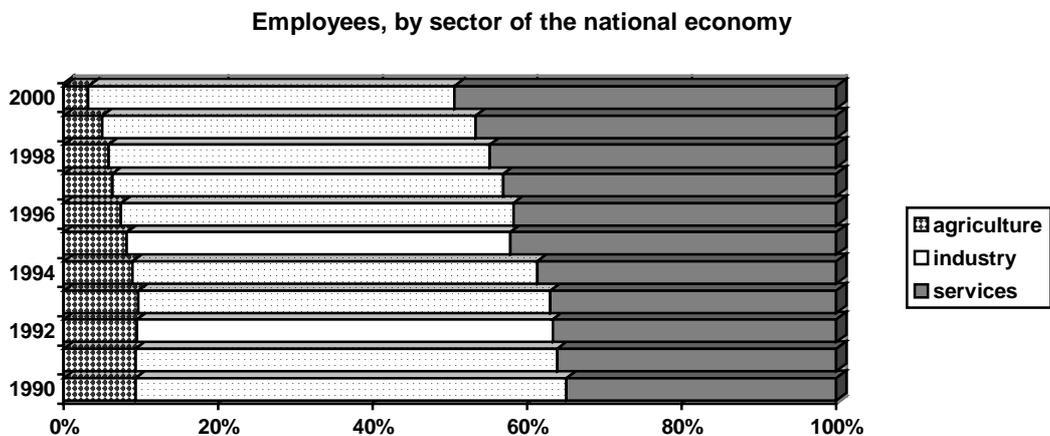
- In agriculture, the employment growth was mostly the result of figures, but less of reality. The people working in this field were preponderantly third age people, of which many were women. Next come people of about 50 years and over who were laid off from industry and had no opportunity for re-employment and returned to rural area, as an alternative to poverty (the cost of living was lower and the household production satisfies many of their needs). Another category consisted of the young who lived in the countryside (commuters) and, once laid off, could hardly find a job in the areas or towns where they used to work. Moreover the rate of return to the place of birth in rural area after schoolings was low and decreasing.

The plotting of land for reversion caused the return to traditional, subsistence agriculture specific to early 20th century and characterized by poor equipping and inefficiency. The peasants' association to till the land, although wanted by people who own land but were unable to work, was practically difficult to achieve and to maintain especially owing to the high cost of mechanized farming. Therefore, agriculture was a source of inefficiency of the economy and, moreover, an aggravating factor of food security.

- As for services, the relative employment growth was the result of figures as the employed population diminished by about 283 thou. people. Such diminution was mainly caused by the low incomes of the population which gave up all "domestic" services that could be taken over by the households (dry cleaning, small-scale repairs, etc.), but also some modern services (tourism, culture, prevention health care, communications, etc.). The still functioning services mostly included the commercial and social ones that both accounted for 31.3 of total employed population in 2000.

Major shifts also occurred in the distribution per sectors and branches of the employees. In agriculture, their share diminished three times (from 9.3 percent in 1990 to about 3 percent in 2000). In industry, it diminished by 8.4 p.p. owing to the decentralization of the productive processes and endeavours to reduce overemployment; on the other hand, some employees gave up their previous status and became small entrepreneurs in the same field or traders. The services sector provided jobs for almost half of the employees of the economy, most of them working in commerce, transport, education and health care (Chart 24).

Chart 24



Source: NIS data.

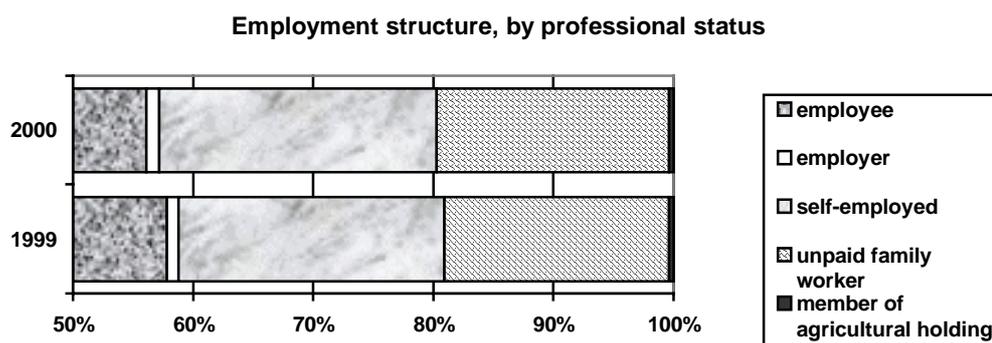
As for the women's place in the employed work force, we have to point out that they were present in the labour market to a greater extent; 48 percent of the employed population in 1999 consisted of the female labour, of which 43 percent in agriculture, 21 percent in industry, about 10 percent in commerce, 7 percent in education and 5 percent in health care. About three-quarters of total women worked in the private and mixed sectors.

**5.2.2.** The employed population distribution by age groups followed the demographic structures by the same criterion – in 1999, most of them were mature people between 35 and 49 years (about one-third), followed by the next inferior age group, 25-34 years (one-fourth of total) and the 50-64 years ones (almost one-fifth), The people of 65 years and over accounted for less than 10 percent of employed population, most of them working in agriculture. The structural shifts of the last years reveal a slight "glinding" to the older age groups, that is, the employed population was ageing, too.

Most of the youngest ones (15-24 years) were employed in public administration (about 28 percent), followed by hotel and restaurant business (20 percent), commerce, constructions and forestry. The people of 35 and 48 prevailed in all fields, except two of them: post and telecommunications where they held a similar share like the 25-34 years group (41 percent) and agriculture (only 20 percent). The employed persons between 50 years and retirement age exceeded 2-3 times the young ones in education, health care, financial and banking field, post and telecommunications, transport and forestry (Annex 12).

**5.2.3** Of total employed population, the employees, although diminishing in number, were the most important social-professional category, followed by the self-employed (mostly in agriculture, constructions and commerce) and unpaid family workers (agriculture)(Chart 25).

Chart 25

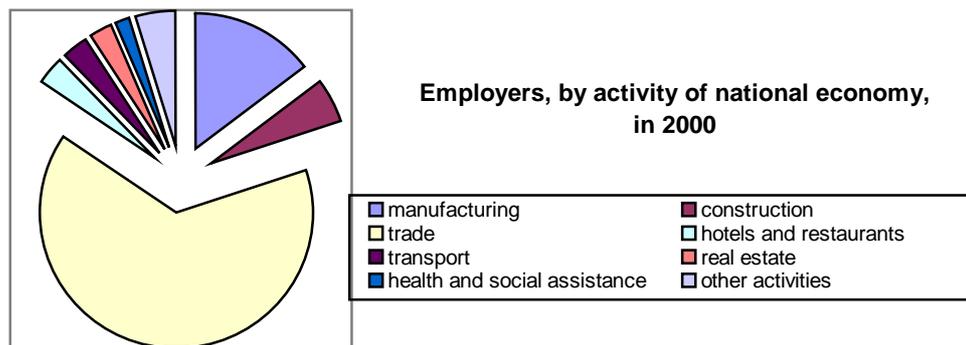


Source: NIS data

The employers accounted for about 1 percent and their share was slightly growing.

As regards the fields of national economy, they were almost 2/3 in commerce, followed by an important share in manufacturing (aprox. 15%) and constructions (5.4 percent) (Chart 26).

Chart 26



Source: NIS data.

Most female employer work in commerce, hotel and restaurant business and real estate transactions. Almost 60 percent of all employers were 35-49 years old and over and more that one-fourth were 25-34 years old.

**5.2.4. The employed population structure per training levels** shows the policy in the field of initial education in school in the last decades. In this respect, there are two aspects to be mentioned : a) the younger people who attended school before 1990 have a high education level owing to the gradual increase in the number of compulsory schooling years; b) the people who graduated after 1990 may be divided into two categories: the young people who entered the labour market after secondary school and completed later training through complementary forms (few of them give up school attendance for various reasons – discouragement, no pro-schooling education, family problems) and the young “persevering” people who, for financial reasons, entered the labour market to provide for themselves during the completion/continuation of their training (Annex 13).

**5.2.5. The non - typical employment expended.** The **temporary and part-time** jobs were quite common. The reasons to accept such jobs were many, from the lack of opportunities for full jobs (family problems, training continuation, a second job to earn more) to “the lack of any other alternative”. At present, about 15-20 percent of employed population have part-time jobs; most of them are women and people from rural area.

Taking on several jobs at a time (full-part time and part-part time combinations) with the aim to increase their incomes is characteristic of the transition period. To a lesser extent, people resort to supplementary/completing jobs during the peak activity of the companies, on the part-time or limited time basis. The share of such jobs does not exceed 10 percent of total employment and varies by season. In general, the secondary activities are covered by 25-49 age group that is more mobile, easier adaptable to flexible working programme and have a higher working potential.

Such forms of employment are preferred by SMEs and micro-enterprises since their social fiscal burden is smaller, and by the employees, because of the related incomes at least for some time (until the operation of the integrated computerized system of labour), they being able to totally or partially avoid taxes on income (e.g. by combined pay, from the real economy and from the underground one). The AMIGO survey reveals that over

15 percent of the employed population had part-time jobs and over 80 percent of that figure were seeking a full-time job.

The structural shifts in employment have increased/brought about labour market distortions and some inflexibility that might further influence the labour market. In principle, **Romania needs a radical change in labour market behaviour**. While some decades ago the flows of employed population came from agriculture towards industry, **at present the employment surplus of the primary sector may be transferred to the tertiary one, but by means/on the basis of the industry's demand for services of industrial type**. Another channel, an indirect but not less important one, is based on **greater incomes from labour, as a basic means to stimulate the consumer services rendered to the population**.

### 5.3. The economic growth-employment relation -A challenge to Romania

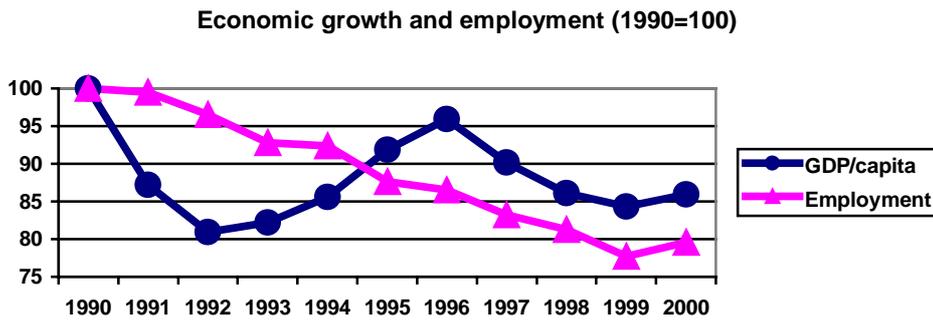
The sustainable employment is possible only through economic growth and investment as today's economic growth means tomorrow's investments and day after tomorrow's jobs (Helmuth Schmidt). In other words, the efficient and competitive economic growth is the only viable way to stimulate employment, to reduce unemployment and to correct the labour market imperfections (EU White Book – Growth, Competitiveness, Employment).

The econometric assessment revealed a non-proportional (0.2-0.5 p.p. increase in employment to 1 p.p. increase in GDP per capita) direct dependence ratio, with variations caused by: economic structures, technology, ratio of the new driving jobs to the accompanying ones, etc.

The calculation of such correlation in Romania, even over a relatively short period (1990-2000) allowed us to find the following:

- over the entire period, the GDP diminution was slower than the employment diminution by about 3 p.p.;
- before 1994, the employment had diminished at a higher rate than the GDP, i.e. less than 8 p.p. as compared to 14.4 p.p.; after 1995, the dynamics ratio reversed, the massive lay-off caused a diminution in employment of 10 p.p. in the last four years of the period and an oscillating GDP trend – increasing in 1996 as against 1995 and then again falling;
- over the period 1992-1996 the two indicators followed contrary ways: the employed population diminished and the GDP grew;
- in 2000, as against 1999, both indicators went up, but the employment increase was higher (+1.6 p.p.)(Chart 27).

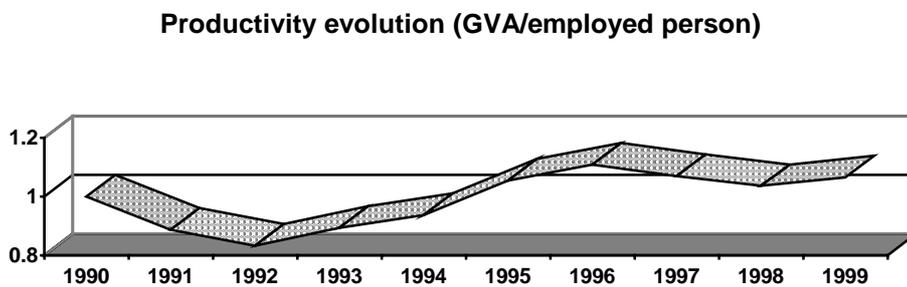
Chart 27



Source: Based on NIS data.

If we extend the analyses to the activity branch level, then we could observe the oscillating evolution (by electoral cycles) in the concern to increase the efficiency of the employed labour force utilisation in the context of an upward trend/trends. The labour productivity index (calculated as a ratio of gross value added to employed population), after 2 years' falling, followed an upward trend, thus recovering in 1995 the efficiency diminution as against the 1990 level. Further, the evolution was oscillating and more moderate (Chart 28).

Chart 28



Source: Based on NIS data.

By activity branch, there were two trends (Annex 14):

a) The improvement of the labour utilisation efficiency, when the productivity index is higher than the unit. In 1999 (according to the available data) the employed work force was more efficiently used in two-thirds of the analysed branches. The values of the indicator oscillated at the end of the period between 1.155 in the forestry field and 2.844 in the post and telecommunication field. The productivity was twice as much in the construction field (2.045), real estate transaction field (2.351) and post and telecommunication field (2.844).

b) Increasing inefficiency of labour utilisation. The gross value added per one employed person was lower than the unit in agriculture (0.737), trade (0.639), public administration (0.585), insurance and banking (0.500).

The question is to what extent the two factors – GVA level/amount and number of employed persons – influenced the labour productivity. The yearly evolution showed oscillating influence of various intensities. If we consider the entire period (1990-1999), we find that, in the whole economy, the efficiency correlation was observed while highly diminishing the employment (by 22.3 percent) as against the GVA diminution (17.2 percent). The same happened at the branch level: forestry, industry, constructions, transports.

In the branches with productivity under the unit, the efficiency diminution was mainly caused by increasing employment (by 12 percent in agriculture, 18 percent in trade, 77 percent in financial and banking activities and 60 percent in public administration). But in none of the branches the GVA exceeded (in real terms) the 1990 level.

In the post and telecommunication field and real estate transaction field, the GVA increased and employment diminished, while in the education field, the GVA was higher, although both partial indices were higher than the unit. As regards the efficiency equilibrium required for sustainable development, we may say that the economic agents and institutions undertaking such activities had the most adequate behaviour, but considering Romania's economic condition (characterised by persistent inflation and uncontrolled prices, sometimes surprising and anarchical) such outcome must be associated with the indirect effects of the pricing policies for the goods and services provided by such branches on the economic and social environment (the case of the post and telephone tariffs, and even of the enrolment fees requested by some private universities).

Such oscillating evolution does not help us to assess the quality/performance of restructuring and privatisation in connection with labour utilisation. The abnormal functioning of the economy caused (non-)correlation, adverse behaviour (especially) on the labour market. If we associate with such phenomena other aspects/components of the reform, the asynchronism of the economic and social environment was more conspicuous:

- the investment dynamics, although higher than the GDP (from 1994) did not bring about technological employment/adjustment, i.e. technical progress incorporation, and replaced labour rather than created new jobs (Annex 15);
- the social taxes on wage were higher, as the share of social cost of labour accounts in 2002 for over 47 percent of total cost of labour, if compared with about 20 percent in 1990<sup>26</sup>.
- the number of employees diminished to almost half as against 1990;
- the purchasing power of salary income in 1999 accounted for about 56 percent of the 1990 level;
- about 1.2 million people work in the black market;
- the lack of an integrated and computerised system of management of the labour market did not allow accurate recording of real facts, which caused that the relevance of some statistical indicators of labour market be in question <sup>27</sup>.

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<sup>26</sup> A broader approach to social taxes is to be found in Valentina Vasile, "Labour Cost. Employment. Competitiveness", in *Employment and Competitiveness. Factors, Mechanisms, Trends in the New Economy*, Institute of National Economy, Bucharest, 2001.

<sup>27</sup> There were unemployed people receiving unemployment benefit while being employed. The economic agents laid off personnel and later re-employed them, but this time enjoying several tax exemptions granted to those who create new jobs (!) etc.; double employment (in the same company one person was employed in the real economy and underground economy at the same time as he/she received the "official" wage and also incomes not recorded in the books for which no taxes or social contributions were paid).

All the above aspects reveal first of all the non-functioning of the labour market mechanisms and the poor correlation of the labour market reform with the other components of the economic and social reform.

To Romania – an EU candidate – the employment and its many effects on the security of the individual, his/her family and society is a fundamental constraint of the programmes for economic and social development, required both by internal factors (the economy's state and dynamics, available human potential) and foreign factors (the requirements for and costs of the EU accession).

It means the integration based on a strategy for efficient management of production factors, labour forces, human resources in general.

Since 2001, there has been a new approach to the labour market policy in Romania, focused on active measures to stimulate job seeking, efficient and competitive work and prevent unemployment. But – essential to Romania – the policy for competitive employment and labour management in general must be supported by (real and not only monetary) macrostabilization, structural coherence and balanced economic, educational and social policies. It is only this way that the three objectives of Romania in the demographic and economic fields can be fulfilled:

- support for employment, the fulfilment of the economic reform and restructuring by absorption and not by generating unemployment;
- the creation of employment structures (by activity sectors, by training level etc.), compatible with the EU ones, as a basis for the competitive integration into the European labour market;
- future diminution in the performance gaps in the management of human resources and in the related costs, especially the social ones.

## 6. SOME FINAL REMARKS

- ✓ The employment condition and the evolution in the last 12 years reflect the dysfunction of the economic and social environment caused by the reform and restructuring, by the errors in the promoted policies and by privatisation, etc.

The continuation of the reforms and especially their successful implementation require to review all economic and social policy package promoted so far, in relation to content and operation. On the one hand, the experience has proven that macrostabilization and sustainable economic growth cannot be achieved only by financial, monetaristic measures unless they are accompanied by actions to diminish the adjacent social costs. On the other hand, there has not been a clear vision of the future restructuring, of its characteristics, of the potential place in new Europe. The automatic adjustment of labour resources within the economy as a result of market operation has been a mere illusion. Moreover, the labour market problems have always several reasons, equally economic, social and cultural.

- ✓ The basic features of the demo-economic shifts in the past transition may be summarised as follows:

a) **Increasing intergenerational tensions** caused by the population ageing (in all respects)<sup>28</sup> not supported by adequate policies for active social protection.

b) **Outdated structural changes**, especially in the sectoral allocation of the employed population - re-agrarisation instead of (real) tertialization; (chaotic) destructuring instead of restructuring by modernisation/incorporation of scientific and technological progress; underutilization and inefficiency of the labour potential instead of competitive re-employment; precarization of employment instead of full employment (according to the new conception).

c) Several **divergences and non-correlations between the labour supply and demand**.

d) Unfair remuneration of the production factors by **labour under-evaluation**: the subsistence remuneration.

e) **Unskilling and deprofessionalisation** owing to long-term unemployment etc.

- ✓ The coherence of economic reform and the creation of a functional market economy and a democratic society cannot be achieved by unemployment, underemployment, poor performance, insecurity and income diminution, ineffective social security and poverty expansion and social marginalization.

*A sustainable economic strategy does include the social component, and not excludes it, and, moreover, it is subject to the requirement for change.*

The main challenges in the employment field and in the field of efficient management of human resources converge on "the creation of new better jobs for a better labour force" (Anna Diamantopoulou, 2000), and on the present orientation of the

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<sup>28</sup> The general population ageing has many implications for the economic and social field, both favourable and less favourable ones. The efficient management of short, medium and long term actions, but mainly building a new living pattern more adequate to the present and future requirements and constraints concerning the human evolution/development require an approach to all aspects such as: a) the individual's ageing owing to longer life-span, which brings about a different life partition, changes in the distribution of individual needs, of the resources involved in the community life; b) the population ageing proper, due to diminishing birth rate; c) the ageing of the occupational structures owing to the longer active life.

EU towards "employment, economic reform and social cohesion, as a component of the knowledge society".

Romania, as a candidate country, must harmonise its national policies in the field with the European strategy requirement for employment. In this respect, benefiting by EU financial assistance, our country is aiming at implementing a national employment programme<sup>29</sup>.

**Box 7**

**National Action Plan for Employment**

NAPE will be designed in accordance with the four main pillars of the European Employment Strategy –towards more and better jobs – employability, entrepreneurship, adaptability and equal opportunities. The NAPE will take into account the current situation of the Romanian economy, the short and long term effects of the industrial restructuring process. NAPE will define a set of appropriate measures, which will result in a change from traditional passive measures to a new active approach –for example, the use of public unemployment benefits to improve employability through the provision of real incentives to the unemployed to seek and take up work or training will be promoted.

NAPE will be prepared by Ministry of Labour and Social Solidarity (in consultation with other concerned government bodies) as a policy document to be formally adopted by the Government of Romania. It will provide the policy framework for implementation in Romania of the European Social Fund–type measures in the context of regional development programmes in Romania. (Source: Elaboration of NACE –RO9908.01)

✓ Based on the present requirement for effective management of labour resources, on the direction suggested by the European Employment Strategy, **Romania's employment objectives and priorities in the near future are:**

i) Lessening/eliminating the consequences of the population ageing:

- the management of the population ageing effects in accordance with the intergenerational equity; a new culture of the intergenerational relations based, on the one hand, on the new pattern of the life span - late access to labour market caused by schooling; extension of the legal length of active life; major involvement of women in the labour market;

- The promotion of an oriented and coherent demographic policy: birth rate stimulation to ensure (at least) the replacement of generations; an effective migration policy - viable alternative policies to prevent the emigration of orphan babies; elimination of /diminution in the young generation emigration by offering opportunities for professional satisfaction and material and social welfare; immigration under control.

ii) Harmonising the economic reform with the demographic developments:

- adaptation of domestic supply of goods and services to the demographic changes;

- the creation of a social protection and assistance system to comply with the population's structure and behaviour;

- the development of a competitive business environment based on knowledge and ICT to stimulate updated technology transfer and to allow for fair/stimulating remuneration of labour.

iii) Carrying on the labour market reform by active policies for efficient utilisation of labour potential, full employment and social protection by incomes; in other words, a global employment strategy based on and aiming at the economic reform and social cohesion and equity:

- increase in the activity rate and employment rate of the working age population up to about 70 percent (the 2010 horizon level in the EU countries);

<sup>29</sup> The institutional co-operation programme called "*The preparation of the National Action Plan for Employment*", receiving PHARE funding and with Germany's and the Netherlands' support.

- diminution in the unemployment rate by stimulating re-employment and active seeking of jobs;
  - (re)establishment of the links between the educational system and labour market, as a means to diminish the insertion and structural unemployment;
  - improvement of employment structure; diminution in and "rejuvenation" of the population employed in agriculture, restructuring of employment in the secondary sector by quick absorption/incorporation of technical progress and ICT in order to create new jobs; increasing employment in the services sector by promoting productive services (completion jobs as an effect of the modernisation and development of the secondary sector) and increasing demand for consumer services (labour income security, one-digit inflation);
    - creation of new competitive jobs to offer opportunities for complementary employment along with measures to diminish the tax burden on wages;
    - promotion of equal opportunities and treatment, of social equity and justice;
      - constraints on the black labour market by stimulating the business environment, especially the SMEs and micro-enterprises; promotion of remunerating wage policies, fair tax policies;
      - stimulation of education, initial professional training and lifelong training oriented towards skills for the production system;
      - limitation of brain- drain and brain-shopping by creating jobs for the gifted young people;
      - attenuation of regional disparities in the employment opportunities, etc.;
      - development and modernisation of the dialogue between the social partners and between the social partners and civilian society as a means to improve the industrial relation at the company level, per branches, on a territorial basis, at the national and regional levels.

## ANNEXES

### Annex 1

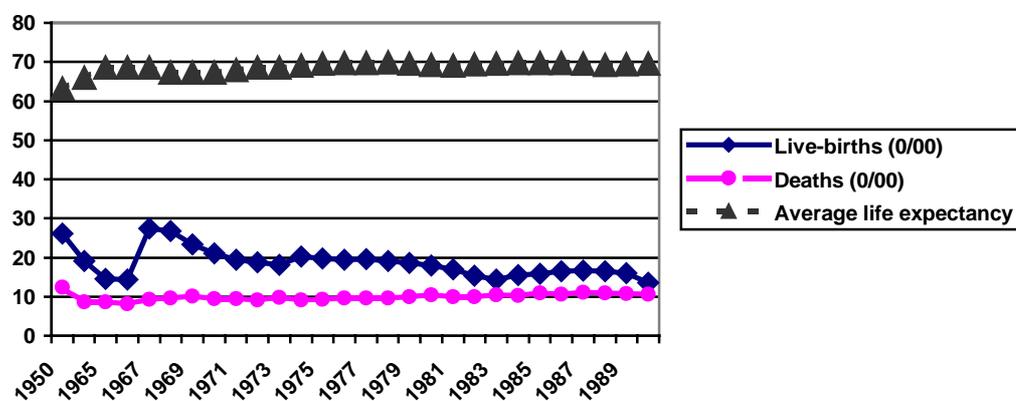
#### Main economic indicators

Indicators	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
GDP indices (previous year =100)	-5.6	-12.9	-8.8	-1.5	3.9	7.1	3.9	-6.1	-4.8	-2.3	1.6
Share of private sector in GDP (%)	16.4	23.6	26.4	34.8	38.9	45.3	54.9	60.6	62.0	63.3	64.5
Budgetary deficit (% in GDP)	1.0	3.2	-4.6	-0.4	-2.4	-2.9	-4.1	-3.6	-3.1	-2.5	-3.6
Average nominal wages thou.ROL/employees	3.4	7.5	20.1	59.7	142.0	211.4	321.1	632.1	1042.3	1522.9	2479.0
CPI indices (previous year = 100)	105.1	270.2	310.2	356.1	236.1	132.3	138.8	254.8	159.1	145.8	145.7
Monthly inflation rate (%)	2.7	10.3	9.6	12.1	4.1	2.1	3.8	8.0	2.9	3.7	2.9
Export FOB (mil USD)	5775	4266	4363	4892	6151	7910	8085	8431	8302	8487	10367
-private sector	...	679	1201	1364	2481	3259	4156	4621	4061	5573	6814
Import CIF (mil USD)	9203	5372	5784	6020	6562	9487	10555	11280	11838	10557	13055
-private sector	...	864	1898	1636	2573	4306	5096	5909	5719	7613	9147
Industrial production indices (previous year =100)	76.3	77.2	78.1	101.3	103.3	109.4	106.3	92.8	86.2	97.8	108.2
Unemployed persons (thou. pers, end of year)	-	337	929	1165	1224	998	657	881	1025	1130	1007
Exchange rate (ROL/USD)	22.43	76.39	307.95	760.5	1655.90	2033.26	3082.69	7167.94	8875.55	15332.93	21692.74
Share of medium and long term external debt in GDP	0.6	4.0	12.7	12.7	15.3	15.5	20.4	24.6	23.8		

Source: NBR Annual report, NIS data.

### Annex 2

#### Demographic indicators, 1950-1990



Source: NIS data.

## Annex 3

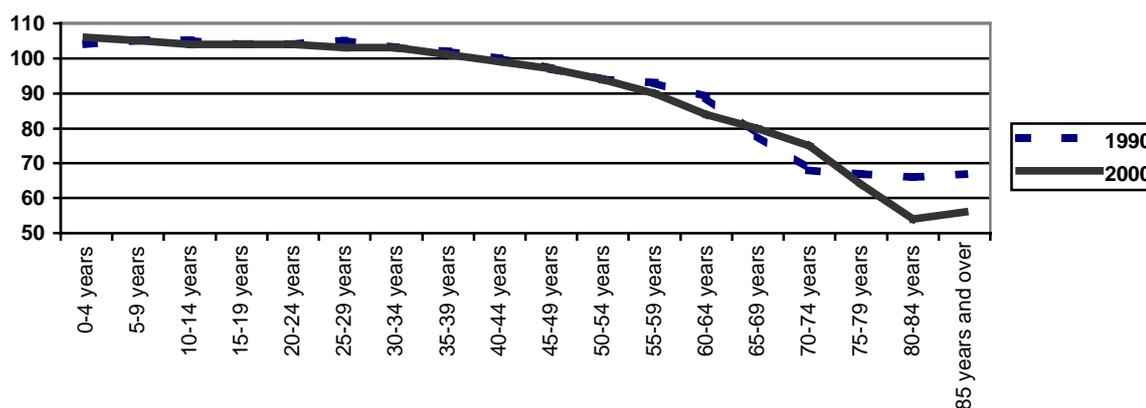
## Vital statistics, 1990-2000

	Natural increase		Migratory increase		Total increase	
	Thou.persons	Per 1000 inhabitants	Thou.persons	Per 1000 inhabitants	Thou.persons	Per 1000 inhabitants
1990	67.6	3.0	-86.8	-3.7	-19.2	-0.7
1991	23.5	1.0	-23.9	-1.0	-0.4	-0.02
1992	-3.5	-0.2	-29.4	-1.3	-32.9	-1.5
1993	-13.3	-0.6	-17.2	-0.7	-30.5	-1.4
1994	-19.4	-0.8	-16.3	-0.7	-35.7	-1.5
1995	-35.0	-1.6	-21.2	-0.9	-56.2	-2.5
1996	-54.8	-2.5	-19.5	-0.9	-74.3	-3.4
1997	-42.4	-1.9	-13.3	-0.6	-55.7	-2.5
1998	-31.9	-1.5	-5.6	-0.2	-37.5	-1.7
1999	-30.6	-1.4	-2.5	-0.1	-33.1	-1.5
2000	-21.3	-0.9	-3.7	-0.2	-25	-1.1
Total	-161.1		-239.4		-400.5	

Source: NIS data.

## Annex 4

## Masculinity ratio, 1990 and 2000



Source: NIS data.

## Annex 5

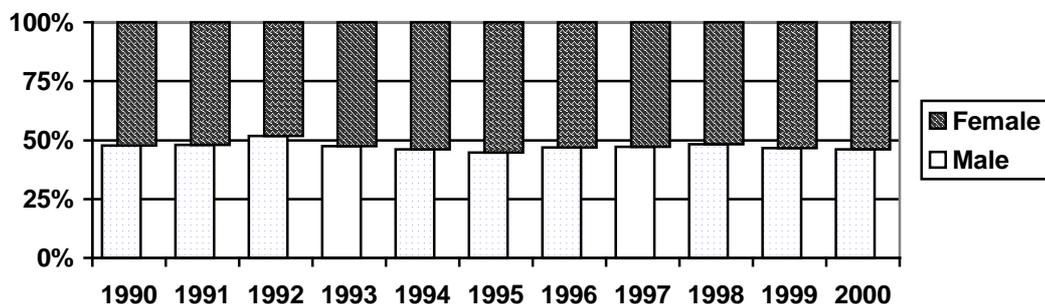
## Average life expectancy by gender, 1990-2000

	Total	Male	Female	Female-Male
1988-1990	69.56	66.56	72.65	6.09
1989-1991	69.76	66.59	73.05	6.46
1990-1992	69.78	66.56	73.17	6.61
1991-1993	69.52	66.06	73.17	7.11
1992-1994	69.48	65.88	73.32	7.44
1993-1995	69.40	65.70	73.36	7.66
1994-1997	69.05	65.30	73.09	7.79
1995-1997	68.95	65.19	73.00	7.81
1996-1998	69.24	65.46	73.32	7.86
1997-1999	69.74	66.05	73.67	7.62
1998-2000	70.75	67.03	74.20	7.17

Source: NIS data.

Annex 6

**Emigration structure by gender, 1990 to 2000**



Source: based on NIS data.

Annex 7

**Structure of urban and rural internal migration flows due to permanent residence change**

	Rates per 1000 inhabitants									
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Total	11.3	12.9	10.6	11.7	12.8	13.0	13.4	12.3	12.3	12.3
From rural to urban	10.7	9.4	6.9	6.6	5.9	5.9	5.6	4.9	4.7	4.7
From urban to urban	4.3	5.8	5.0	5.6	6.1	6.5	6.1	5.9	6.0	6.0
From rural to rural	4.7	6.3	5.7	6.5	7.8	7.0	7.6	6.4	5.9	5.9
From urban to rural	2.5	3.8	3.4	4.7	5.8	6.7	7.9	7.7	8.3	8.3

Source: NIS data

Annex 8

**Population's structure by main age groups, 1990-2001**

	Total = 100		
	0-14 years	15-59 years	60 years and over
1990	23.7	60.9	15.4
1991	23.2	60.9	15.9
1992	22.7	60.9	16.4
1993	22.1	61.1	16.8
1994	21.4	61.5	17.1
1995	20.8	61.8	17.4
1996	20.2	62.2	17.6
1997	19.6	62.5	17.9
1998	19.2	62.6	18.2
1999	19.0	62.5	18.5
2000	18.5	62.8	18.7
2001	18.0	63.1	18.9

Source: NIS data.

## Annex 9

**Average age by area and gender, 2000 and 2001, January 1**

Years

	2000			2001		
	Total	Male	Female	Total	Male	Female
Total	37.0	35.7	38.3	37.3	36.0	38.5
Urban	35.7	34.7	36.7	36.2	35.1	37.2
Rural	38.7	37.0	40.2	38.6	37.1	40.2

Source:NIS data.

## Annex 10

**Employment by activity of national economy**

1990=100

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
<b>Total</b>	99.5	96.5	92.8	92.4	87.6	86.5	83.2	81.3	77.7	79.6
Agriculture	102.0	110.0	115.8	116.6	104.3	106.4	108.7	107.9	111.9	115.3
Sylviculture, forestry and hunting	100.0	91.0	86.5	96.6	87.6	79.8	69.7	59.6	52.8	52.8
Industry	95.0	82.4	75.7	72.0	67.8	68.4	61.2	57.9	51.3	50.0
Mining and quarrying	106.9	105.0	100.0	98.8	96.5	96.5	71.0	65.3	56.4	54.1
Manufacturing	93.3	79.3	72.1	68.0	63.5	63.7	57.5	54.4	48.0	46.8
Electric and thermal energy, gas and water	115.8	123.3	124.1	127.8	128.6	142.1	140.6	138.3	130.8	130.1
Construction	71.0	82.0	81.3	79.7	67.8	67.3	62.2	55.4	47.9	50.0
Trade	129.9	140.1	108.7	118.2	160.8	143.5	149.1	155.2	140.5	144.2
Hotels and restaurants	114.5	94.1	70.4	73.1	66.1	62.4	69.9	52.7	53.8	50.0
Transport and storage	89.1	83.4	74.5	69.3	68.7	67.2	60.7	54.1	46.5	48.9
Post and telecommunicatio ns	99.0	95.9	97.9	96.9	101.0	102.1	103.1	103.1	97.9	95.9
Financial, banking and insurance activities	112.8	146.2	169.2	151.3	182.1	182.1	187.2	194.9	176.9	197.4
Real estate and other services	108.5	113.7	107.5	112.9	83.5	66.2	51.3	62.6	61.3	69.8
Public administration	112.5	128.4	133.0	142.0	148.9	142.0	147.7	152.3	160.2	167.0
Education	103.6	105.1	105.1	106.3	106.3	107.3	103.6	103.6	104.4	102.4
Health and social assistance	97.2	95.6	96.3	104.1	104.1	105.3	98.4	99.1	86.6	106.6
Other activities of the national economy	149.0	82.9	78.1	79.3	77.7	70.5	67.7	66.1	58.6	62.5

Source:based on NIS data.

## Annex 11

## Discouraged persons seeking jobs by area, gender and age groups, 2000

	Total	Male	Female	Urban	Rural
Total discouraged persons (thou.persons)	307	126	181	185	122
	-% against total-				
15-24 years	32.7	38.3	29.8	22.2	48.6
25-34 years	24.7	22.1	26.4	26.8	21.4
35-49 years	31.0	25.2	35.0	39.8	17.7
50 years and over	11.6	14.4	9.7	11.2	12.3

Source:NIS data.

## Annex 12

## Employment structure by age groups and activity of national economy, 1999

percentage

	Total employe ment	Age groups					Of total women	Age groups				
		15-24 years	25-34 years	35-49 years	50-64 years	65 years and over		15-24 years	25-34 years	35-49 years	50-64 years	65 years and over
<b>TOTAL</b>	<b>100.0</b>	<b>12.3</b>	<b>24.8</b>	<b>34.3</b>	<b>18.9</b>	<b>9.7</b>	<b>46.2</b>	<b>5.0</b>	<b>11.3</b>	<b>16.2</b>	<b>8.7</b>	<b>5.0</b>
Agriculture	100.0	12.4	15.0	20.0	29.3	23.3	50.4	5.4	7.3	10.3	15.3	12.1
Sylviculture, forestry and hunting	100.0	11.0	35.4	40.4	13.2	-	11.2	0.3	4.6	6.0	0.3	-
Industry	100.0	9.2	31.4	49.3	9.9	0.2	40.4	4.1	13.3	20.6	2.3	0.1
Mining and quarrying	100.0	8.4	39.7	42.3	9.6	-	14.8	0.2	6.0	7.5	1.1	-
Manufacturing	100.0	9.6	30.6	50.2	9.4	0.2	44.6	4.8	14.6	22.7	2.4	0.1
Electric and thermal energy, gas and water	100.0	5.8	32.2	46.9	15.1	-	20.2	1.0	6.6	10.6	2.0	-
Construction	100.0	12.5	31.3	43.1	12.9	0.2	12.4	0.5	4.3	6.6	1.0	-
Trade	100.0	18.0	35.8	38.7	7.2	0.3	55.4	10.2	19.8	21.9	3.4	0.1
Hotels and restaurants	100.0	20.3	33.2	37.9	8.6	-	66.0	15.3	20.4	24.6	5.7	-
Transport and storage	100.0	6.4	31.8	49.0	12.7	0.1	18.0	0.8	6.0	9.7	1.5	-
Post and telecommunicati ons	100.0	5.6	41.5	41.3	11.5	0.1	53.9	3.2	19.0	26.0	5.7	-
Financial, banking and insurance activities	100.0	4.6	39.4	40.0	16.0	-	71.3	3.5	27.9	29.9	10.0	-
Real estate and other services	100.0	7.5	35.9	44.0	12.5	0.1	47.1	3.3	16.3	23.0	4.5	-
Public administration	100.0	27.9	28.4	33.9	9.5	0.3	22.7	1.2	7.6	11.5	2.4	-
Education	100.0	7.9	24.0	43.2	24.5	0.4	69.5	6.3	17.6	32.1	13.4	0.1
Health and social assistance	100.0	8.2	30.3	43.6	17.4	0.5	78.8	6.9	23.7	35.8	12.2	0.2
Other activities of national economy	100.0	11.8	30.9	40.6	15.6	1.1	46.0	5.3	13.4	19.8	7.0	0.5

Source:NIS data.

**Employment structure by age groups and training level, 1999**

percentage

Training level	Total employment	Age groups				
		15-24 years	25-34 years	35-49 years	50-64 years	65 years and over
<b>Total</b>	100.0	100.0	100.0	100.0	100.0	100.0
Higher education	8.5	2.3	10.2	11.3	9.1	1.0
Speciality post high school or technical foreman education	4.5	2.8	3.9	6.0	6.0	0.5
High school	29.2	35.4	49.7	31.3	9.0	1.3
Vocational, complementary or apprenticeship	21.6	23.4	25.7	28.5	12.4	2.2
Secondary school	21.4	30.8	8.9	19.4	31.9	28.0
Primary or without graduated school	14.8	5.3	1.6	3.5	31.6	67.0
Of total, women						
<b>Total</b>	46.2	41.1	45.4	47.1	46.1	51.6
Higher education	3.7	1.2	5.2	5.0	3.2	0.1
Speciality post high school or technical foreman education	1.9	1.9	1.9	2.4	1.8	
High school	15.3	17.4	25.4	17.3	4.6	0.4
Vocational, complementary or apprenticeship	6.2	7.0	7.8	8.7	1.9	0.4
Secondary school	10.6	12.1	4.5	11.8	15.1	11.0
Primary or without graduated school	8.5	1.5	0.6	1.9	19.5	39.7

Source: NIS data.

## Annex 14

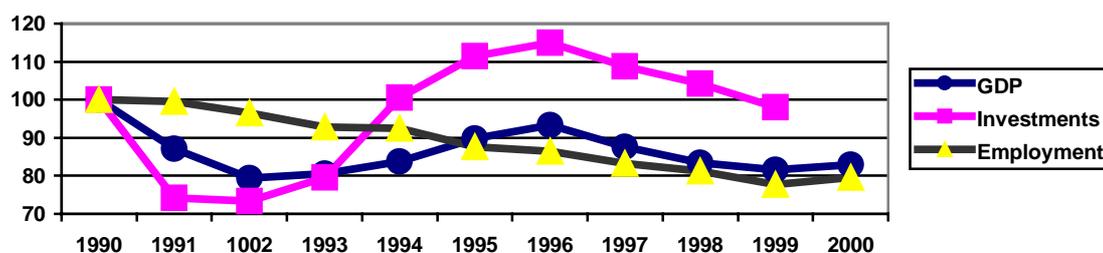
## GVA and employment by activity of national economy

	Indicators	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	1999/ 1990
Agriculture	GVA indices	100	88.1	76.5	87.4	89.9	94.2	90.2	89.1	79.6	82.5	82.5
	Employment indices	100	102	110.05	115.78	116.56	104.321	106.35	108.74	107.89	111.91	111.91
	<b>GVA/employment</b>	<b>1.000</b>	<b>0.864</b>	<b>0.695</b>	<b>0.755</b>	<b>0.771</b>	<b>0.903</b>	<b>0.848</b>	<b>0.819</b>	<b>0.738</b>	<b>0.737</b>	<b>0.737</b>
Silviculture	GVA indices	100	73.5	69.2	63.3	64.9	66.9	66.9	63.1	63	61	61
	Employment indices	100	100	91.011	86.517	96.629	87.6404	79.775	69.663	59.551	52.809	52.81
	<b>GVA/employment</b>	<b>1.000</b>	<b>0.735</b>	<b>0.760</b>	<b>0.732</b>	<b>0.672</b>	<b>0.763</b>	<b>0.839</b>	<b>0.906</b>	<b>1.058</b>	<b>1.155</b>	<b>1.155</b>
Industry	GVA indices	100	87.2	75.2	76	78.6	83	88.7	81.6	77.3	76.2	76.2
	Employment indices	100	94.956	82.422	75.655	71.96	67.7653	68.439	61.174	57.853	51.286	51.29
	<b>GVA/employment</b>	<b>1.000</b>	<b>0.918</b>	<b>0.912</b>	<b>1.005</b>	<b>1.092</b>	<b>1.225</b>	<b>1.296</b>	<b>1.334</b>	<b>1.336</b>	<b>1.486</b>	<b>1.486</b>
Construction	GVA indices	100	80.6	76.1	94.9	120.8	128.9	129.9	104.9	100.2	97.9	97.9
	Employment indices	100	70.963	82.011	81.303	79.745	67.847	67.28	62.181	55.382	47.875	47.88
	<b>GVA/employment</b>	<b>1.000</b>	<b>1.136</b>	<b>0.928</b>	<b>1.167</b>	<b>1.515</b>	<b>1.900</b>	<b>1.931</b>	<b>1.687</b>	<b>1.809</b>	<b>2.045</b>	<b>2.045</b>
Commerce	GVA indices	100	74.4	67.6	61.5	60.9	74.2	83.4	74.4	77.5	75.5	75.5
	Employment indices	100	125.97	128.31	98.895	106.63	136.464	122.65	128.73	128.87	118.23	118.23
	<b>GVA/employment</b>	<b>1.000</b>	<b>0.591</b>	<b>0.527</b>	<b>0.622</b>	<b>0.571</b>	<b>0.544</b>	<b>0.680</b>	<b>0.578</b>	<b>0.601</b>	<b>0.639</b>	<b>0.639</b>
Transport	GVA indices	100	83.2	78.1	78.5	78.1	78.7	79.3	70	60.4	57.8	57.8
	Employment indices	100	89.055	83.358	74.513	69.265	68.6657	67.166	60.72	54.123	46.477	46.48
	<b>GVA/employment</b>	<b>1.000</b>	<b>0.934</b>	<b>0.937</b>	<b>1.054</b>	<b>1.128</b>	<b>1.146</b>	<b>1.181</b>	<b>1.153</b>	<b>1.116</b>	<b>1.244</b>	<b>1.244</b>
Post and telecommunication	GVA indices	100	138.3	149.7	181.3	199.3	211.9	279.2	274.7	279.7	278.5	278.5
	Employment indices	100	98.969	95.876	97.938	96.907	101.031	102.06	103.09	103.09	97.938	97.94
	<b>GVA/employment</b>	<b>1.000</b>	<b>1.397</b>	<b>1.561</b>	<b>1.851</b>	<b>2.057</b>	<b>2.097</b>	<b>2.736</b>	<b>2.665</b>	<b>2.713</b>	<b>2.844</b>	<b>2.844</b>
Finance	GVA indices	100	99.7	139.3	140	142.3	144.3	123.7	95.8	97.6	88.4	88.4
	Employment indices	100	112.82	146.15	169.23	151.28	182.051	182.05	187.18	194.87	176.92	176.92
	<b>GVA/employment</b>	<b>1.000</b>	<b>0.884</b>	<b>0.953</b>	<b>0.827</b>	<b>0.941</b>	<b>0.793</b>	<b>0.679</b>	<b>0.512</b>	<b>0.501</b>	<b>0.500</b>	<b>0.500</b>
Real estate	GVA indices	100	98.2	117	114.7	122.4	136	156.3	145.6	145.5	144.2	144.2
	Employment indices	100	108.51	113.66	107.47	112.89	83.5052	66.237	51.289	62.629	61.34	61.34
	<b>GVA/employment</b>	<b>1.000</b>	<b>0.905</b>	<b>1.029</b>	<b>1.067</b>	<b>1.084</b>	<b>1.629</b>	<b>2.360</b>	<b>2.839</b>	<b>2.323</b>	<b>2.351</b>	<b>2.351</b>
Public administration	GVA indices	100	92	101.9	103.9	113.9	119	110.5	106.9	103.3	93.7	93.7
	Employment indices	100	112.5	128.41	132.95	142.05	148.864	142.05	147.73	152.27	160.23	160.23
	<b>GVA/employment</b>	<b>1.000</b>	<b>0.818</b>	<b>0.794</b>	<b>0.781</b>	<b>0.802</b>	<b>0.799</b>	<b>0.778</b>	<b>0.724</b>	<b>0.678</b>	<b>0.585</b>	<b>0.585</b>
Education	GVA indices	100	116.5	115.6	119.6	120	124.2	136.6	123.8	123.3	119.9	119.9
	Employment indices	100	103.65	105.11	105.11	106.33	106.326	107.3	103.65	103.65	104.38	104.38
	<b>GVA/employment</b>	<b>1.000</b>	<b>1.124</b>	<b>1.100</b>	<b>1.138</b>	<b>1.129</b>	<b>1.168</b>	<b>1.273</b>	<b>1.194</b>	<b>1.190</b>	<b>1.149</b>	<b>1.149</b>
Health	GVA indices	100	98	95.2	97.3	106.2	109.1	119.4	105.2	121.7	109.9	109.9
	Employment indices	100	97.188	95.625	96.25	104.06	104.063	105.31	98.438	99.063	86.563	86.56
	<b>GVA/employment</b>	<b>1.000</b>	<b>1.008</b>	<b>0.996</b>	<b>1.011</b>	<b>1.021</b>	<b>1.048</b>	<b>1.134</b>	<b>1.069</b>	<b>1.229</b>	<b>1.270</b>	<b>1.270</b>
Total	GVA indices	100	88.2	80.3	83	86.5	92.4	96	89	84.2	82.8	82.8
	Employment indices	100	99.502	96.476	92.823	92.352	87.5738	86.522	83.238	81.301	77.675	77.68
	<b>GVA/employment</b>	<b>1.000</b>	<b>0.886</b>	<b>0.832</b>	<b>0.894</b>	<b>0.937</b>	<b>1.055</b>	<b>1.110</b>	<b>1.069</b>	<b>1.036</b>	<b>1.066</b>	<b>1.066</b>

Source:NIS data.

## Annex 15

## GDP, investments and employment (1990=100)



Source:NIS data.

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