

# ROMANIA



and

# JIU VALLEY



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# Romania

## Introduction

Romania is a country located at the crossroads of Central and Southeastern Europe, on the Lower Danube, within and outside the Carpathian arch, bordering on the Black Sea. Romania shares a border with Hungary and Serbia to the west, Ukraine and Moldova to the northeast and east, and Bulgaria to the south.

The Kingdom of Romania emerged when the principalities of Moldavia and Wallachia were united under Prince Alexander Ioan Cuza in 1859. Independence from the Ottoman Empire was declared on May 9, 1877, and was internationally recognized the following year. At the end of World War I, Transylvania, Bukovina and Bessarabia united with the Kingdom of Romania. Greater Romania emerged into an era of progression and prosperity that would continue until World War II. By the end of the War, many north-eastern areas of Romania's territories were occupied by the Soviet Union, and Romania forcibly became a socialist republic and a member of the Warsaw Pact.

With the fall of the Iron Curtain and the 1989 Revolution, Romania began its transition towards democracy and a capitalist market economy. After a decade of post-revolution economic problems, extensive reforms fostered economic recovery making Romania now an upper middle-income country with high human development.

Romania joined NATO on March 29, 2004, the European Union on January 1, 2007 and is also a member of the Latin Union, of the Francophonie, the OSCE, the WTO, the BSEC and the United Nations. Today, Romania is a unitary semi-presidential republic, in which the executive branch consists of the President and the Government.

The name of Romania, România, comes from român (previously rumân), "Romanian", which in turn is a derivative of the Latin *romanus*, meaning "citizen of Rome". The fact that Romanians call themselves a derivative of *romanus* is first mentioned in the 16th century by Italian humanists travelling in Transylvania, Moldavia and Wallachia.

- **What does the Labour Market mean?**

In the past, the most common definition of labour market flexibility was the neo-liberal definition. This entailed the ease of labour market institutions in enabling labour markets to reach a continuous equilibrium determined by the intersection of the demand and supply curve.

- **The Crisis on the Labor Market in Romania**

In the last 17 years the labor market in Romania has suffered deep changes. We can find two distinct stages regarding the evolutions on the labor market in Romania after 1989. The first stage, which includes the period 1990 – 2003, is defined as a period of deep restructurations of the Romanian economy. It is characterized as a period of relatively high unemployment and the undertaken actions were directed mainly at limiting the unemployment and its harmful effects on the society. We consider that after 2005 the employment evolution heads towards a new crisis on the labor market, but its cause is not a high unemployment, but rather an offer dropping on the labor market.

- **The economic and social context**

In the first years of transition, Romania has faced an unemployment boom, on the basis of the structural changes in the national economy. By the process of restructuration, privatization, closeout of the companies having mainly a state capital, the structure of the employment force has changed, i.e. employment in the state sector was reduced as a result of the processes of restructuration, privatization and closeout, while employment in the private sector has increased. As a result of the imbalances caused by passing to market economy, the massive personal dismissals induced by the process of restructuration or closeout of the economical unit led to the decreasing of the number of employees and to increase of number of unemployed. It is necessary that the social policy should start from the need for a radical change in approaching this subject. To create minimum conditions for citizens to be able to actually take part in the social life it is necessary that the legislative guarantees should be ensured urgently in parallel with continuous increase of the individual responsibility level. The social model for achieving this must rely on the equilibrium between competition, cooperation and solidarity, by differential pay according to efficiency criteria and by balanced and transparent distributions of incomes earned in the society. In order to come out from the economic crisis in which lies, Romania needs more work places on the basis of the social solidarity. The main objective is to ensure the protection and social welfare measures for certain categories or groups of persons able to work, by actions which will contribute to securing the work place, to attain permanent and rising incomes, as an essential premise for improving the living conditions of the active persons in the labor market.

- **The labor force employment**

After 1990, the market labor formation and functioning has become one of the priorities of transition and economic reform program. As a derivate market, the labor market has received and gathered all shortcomings of the labor market functioning of other Romanian markets. The

macroeconomic context for ensuring conditions to realize the criteria for joining the European Union imposed that the labor market functioning to show itself as a complex maturity process of its legislative and institutional components. These ensure in a relative short period of time the increase of the employment rate of labor force at 70%. In conditions of speeding up of the restructuration and increase of the insecurity at the work place, a substantial number of social problems raised in the labor market. Labor force employment has become one of the tensest areas of the transition. Romania faced a crisis of labor force employment under conditions of economic decline established in the decade 1990-2000. Privatization and restructuration the Romanian economy has significantly influenced the labor market, by determining massive dismissals and appearance of the unemployment phenomena. The involutions in the economy limited the employment possibilities of the labor force; the number of the active and employed population, respectively the activity and employment rate, were reduced, while the unemployment became chronic.

- **The crisis on the labor market in Romania**

In the last period of time, the specialists, citizens and mass-media are more often asking themselves whether there is or not a crisis on the labor market in Romania or whether on middle-term we're heading towards a crisis in this field. If there is a real crisis on the labor market in our country, we logically have to answer also what we have to do on short and middle term to solve this delicate and serious matter. According to statistics, comparative with 1989, the indicators show us that the number of employees in Romania has constantly dropped from 9 millions to 4.7 millions, which are now. The persons employed in agriculture are about 2.2 millions and the persons employed as authorized natural person, members of the family businesses, employers, managers, administrators comes up to 1,1 million persons. In these conditions the number of employed persons in Romania is about 8 millions. As a conclusion, in 16 years the number of persons employed in Romania dropped to 1 million compared to 1989. The diminishing number of persons employed in Romania was caused especially on the basis of reduced number of employees in Romania. In the time of strong economic restructuration, the number of employees was significantly reduced in Romania from 9 millions to 4.7 millions. In exchange, the employment has grown in areas typical to market economy, which have developed and continuously consolidated in the last 16 years. The unemployment in Romania hasn't increased accordingly as a result of the legal and illegal immigration. Following this, at present over 2 millions Romanian citizens are working abroad, in accordance with some unofficial statistics. The migration phenomenon was accelerated in the last 3-4 years before Romania officially joined the EU. The migration phenomenon has had a series of positive effects, such as reduction of unemployment, poverty and social problems, especially in the rural environment and at the level of the domains which were strongly affected by the economic restructuration in the last years of transition. The fact that in the last period of time the migration phenomenon has

increased led to a labor deficit in certain domains such as constructions, agriculture, tourism, construction materials, mechanical processing, clothing and leather goods industry. Should the migration phenomenon continue or accentuate after January 01 st 2007 through the increase of the number of those who choose to work in other EU countries, the labor force deficit also accentuates and expands in other fields, in addition to those already mentioned. This phenomenon shall lead to a real crisis on the Romanian labor market. The crisis on the labor market shall limit Romania's economical growth by reducing the annual rhythm of economic growth and shall seriously affect the achievement of the objective of Romania's medium and long term lasting development. Romania's budgetary balances are also endangered, with strong negative effects especially on the budgets of social and health insurance pensions. It is known budgets of social and health insurance pensions function well on a ratio from 3 to 3,5 employees per one beneficiary, and at present this ratio is totally unfavorable, from 0,8 employees per one beneficiary. The continuation of migration in the previous period over the critical level, estimated by some calculations at still 0.5 millions persons, shall lead to a serious crisis of systems of social and health insurance pensions. It is jeopardized the capacity to pay the pensions in Romania and to finance the health system at the level of its proper functioning.

In these conditions we consider that the responsible governmental authorities must urgently receive the alarm signal and that they take the necessary measures in order to avoid the crisis on the labor market and the extremely serious negative consequences that may appear in other domains as well. We will now try to present synthetically from our point of view the main measures to be taken in order to avoid a crisis on the labor market from Romania:

- Urgent measures in order to introduce on the labor market the economic and financial leverages proper to a market economy which would lead to the growth of labor incomes, diminish the phenomenon of labor force migration and contribute to the coming back of some Romanian citizens who are working abroad. The specialists' estimations show us the fact that when the medium wages in Romania surpass the limit of 50% of the medium wages in the EU countries, the migration tendency will decrease, and those working abroad will come back in Romania, after having bought a lodging, longlasting house equipments and eventually a means of transport with their incomes;
- Measures for stimulating the Romanian capital investments in high efficient branches and domains which insure higher payment standards as well;
- Stimulating the investments in the continuous professional training of employees.

As a conclusion, Romania will urgently have to establish on middle and long term the following, in order to come out from the economic crisis on the labor market:



- Objectives of employment the labor force;
- Strategy of employment the labor force;
- Romania's demographic strategy.

- **The objectives of the labor force employment policy in Romania**

The historic context of Romania's actions with a view to integration in the Community's structures are placed under the sign both of deep changes in Romanian society after 1989, such as: building of a democratic society and instauration of a market economy and of changes on the level of European Union by the need of structural intern reforms, doubled by its unavoidable extending over the European countries, which subscribe to the same democratic values.

The declared purposes of the social policy of the European Community and of the member states are promoting the employment of persons able to work, *improving the living and working conditions* and harmonization of the frame conditions for more work and development. In order to achieve this objective, the Community together with the member states is applying a series of measures in all areas of politics, such as adaptation of legal and administrative regulations, the agreement between the social orders and member states, establishing the minimum standard of working conditions, promoting the exchange of information, regulations for the purpose of improving the working environment, promoting the financial or other type of employment and creating new work places and professional training.

The objectives of the employment policy and of the labor market of the European Union and its members are based on the main social rights of the persons capable of working, established by common consent, on the right to be treated with generosity as well as the right to the free commodity and capital movement, *on the national regulations which act within the common social regulations*, on norms and conventions as well as on the objective of promoting and adapting the education system.

One of the basic principles of the social European policy is the equal treatment of all persons capable of working from the legal and social point of view, the forbidding of any form of discrimination, the guarantee of the access to the training and employing institutions as well as to the specific measures and the guarantee of exercising the trade union rights.

The restructuration of the labor market from Romania, within the coordinates of the European strategy, concerns the development and improvement of new mechanisms which should drive away the reminiscent shortcomings of the past. In the same time, a correct evaluation and adapting of these mechanisms is necessary, in accordance with the specific conditions of Romanian economy. On one hand, they will have to answer to the content of the labor market, in order to ensure the fulfillment of its functions with no syncope, and, on the other hand, they must

ensure the flexibility of the labor market, its openness, respectively the passing from one sector to another, within proportions and rhythms which should diminish the economic and social costs of transition.

- **Employment strategy in Romania in order to come out from the labor market crisis**

The evolution of employment in Romania is going to be influenced by several factors. On the one hand, the flow of foreign investments shall generate new working places. Small and medium businesses also expect to have a positive influence on the increase of the employment level, employment which is mainly localized under the aspect of non-remunerated work. On the other hand, continuing the restructuration and privatization process shall induce economic growths on the employment, generating new dismissals. Also, despite the relatively high economic growth, the labor force market is still under pressure, mainly because of the age and profession structure of unemployed people, which is not identical to demands in economy.

For these reasons the only solution by which employment in Romanian may be positively influenced is to draw up a coherent employment strategy, with precise objectives and integrated applicability, in which all actions of the state institutions have as convergent point the increase of employment percentage.

The objectives of the employment strategy in Romania must be related to the economic revival based on the economic macrostability and the durable development of basic economy sectors.

We consider that the objectives of the Strategy in the employment field are the following:

1) increasing the employment level:

- adopting UE guidelines regarding employment;
- increasing the level of employment;
- repatriation (return) of the labor force of Romania that is working abroad at present;
- increasing the level of salaries in Romania;
- developing the enterprising spirit of employers and persons looking for a job;
- increasing mobility, flexibility, adaptability of the labor force;
- guaranteeing equal opportunities.

2) measures of supporting the unemployed:

- applying insurance measures for unemployment;

- moving the stress of protection policies of the unemployed from passive to active measures.

3) increasing the budget of insurances for unemployment and efficiently using it by increasing the percentage of expenses for active measures in the total of budgetary expenses.

One may achieve the objectives established in the strategy only by constituting a complete social partnership, in which the social partners are involved in drawing up policies, programs in the field of employment and also involved in implementing them.

Within this context, social partners are systematically integrated in the development and implementation of the actions, according to public/private initiatives.

By social dialogue, partnerships make their presence noticed at European level (transnational cooperation concerning youth, education and training programs), national level (tripartite agreements), local level (at community level), at companies' level (employers/trade union/employees).

Partnerships are developed especially through active involvement of local and regional authorities of civil society organizations, which offer services closer to the citizens and which are better adapted to needs specific to communities.

Because at this stage Romania must adapt as far as all activity sectors are concerned in order to achieve and to maintain competitiveness, the social partnership becomes an efficient method to ensure activity modernization and diversification.

We consider that the main actions needed to achieve the objectives are the following:

- Ensuring continuous economic growth, with a direct impact on the growth of the number of working places, based on the development of the sector of small and medium businesses; a special emphasis shall be put on the development potential of certain activity fields, like services (tourism, information technology, etc.), whose percentage within the economy is still quite small.
- Fighting against working without legal forms and initiating measures that lead to reducing costs of working places, fact which shall stimulate the employers to comply with the legislation within this field.
- Identifying alternatives for employing dismissed persons, fighting against long term unemployment that represents a permanent preoccupation for the following years, in the context of continuation of the privatization process and economic restructuring.
- Drawing up special programs addressed to groups of people confronted with difficulties of integration on the labor market : young people , disabled persons, Rroma persons.

- Promoting measures destined to lead to the growth of the participation rate by prolonging the activity period for elder persons , based on the l a t e s t demographic evolutions, characterized by an aging process of the population.
- Attenuating discrepancies between supply and demand on the labor force market, especially by adapting the initial and continuous training system t o t r e n d s on medium a n d l o n g term o f t h e occupational world, in a society based on knowledge and usage of new computer technologies.

- **Romania's demographic strategy**

We consider that the strategy and objectives of the employment policy in Romania may be achieved with favorable results only if we shall urgently draft and implement the demographic strategy of Romania, strategy that shall have as main objective the stopping of the demographic decline of our country.

Demographic strategy shall establish the way in which actions must be carried out in Romania on medium and long term in order to stimulate the demographic growth, which is considered a priority in sustaining the durable development of our country.

We consider that Romania's demographic evolution represents a maximum priority for all of us, and the drafting and implementation of the strategy within the field is determining for the economic and social development in our country.

# Jiul Valley

## *The Phoenix of Romania*

### Introduction

Jiu Valley is a region that has survived many historical events, endured a lot of difficulties but has managed to overcome all the issues and transformed itself into a serene place surrounded by gorgeous mountains.

The people here are friendly, hard working and with a strong conscience of their roots, always managing to keep alive the undying spirit of their ancestors. Our traditions succeeded in showing worldwide that the Romanian people are talented, creative, gifted and spiritual; they are also eager to learn about the customs and traditions of other countries, understand their habits but during this learning process they have never let their national traditional folklore influenced by any of them.

When you hear the name “Jiu Valley”, the things that come into your mind are the beautiful and surreal landscapes, great food, simple yet generous people and of course the mining industry with all its positive and negative aspects. It is hard to explain in words the impact and the changes on the labor market which this activity has brought over this region from the late 1800s until present. The people here have learnt to lower their standards but this has never stopped them from enjoying life, making each holiday special, cherishing what this region has to offer.

In a place of multiple nationalities, various cultures and people who live their lives to the fullest, Jiu Valley is a region where past and present collide and no matter how awful or challenging may the past have been, JVR has risen from its own ashes just like the Phoenix bird...

## Presentation of the region

- Gateway to the Transylvanian Alps

Nestled among the chain of Carpathian Mountains that cover one-third of Romania, Jiu Valley is the gateway to the Retezat National Park and other Carpathian destinations. It offers unique opportunities to travelers, sports enthusiasts, and prospective businesses. Whether your interest is in Dacian or modern history, outdoor four-season adventure and recreation sports in the Transylvanian Alps, coal mining, or investment, this region is the perfect place for you.

Jiu Valley is still relatively undiscovered. Because of its geographical location and socio-economic context, the forest and mountain regions have not suffered from the environmental degradation of so many popular resort areas and mountains around Europe. Here one can still discover new caves, hike in the back-country without encountering hordes of noisy car-camping tourists, be able to pioneer new routes up challenging cliff ascents, and witness Carpathian animal treasures such as the elusive bear, chamois, wild boar, and wolves.

### **Cities and towns**

- Aninoasa
- Banita
- Lupeni
- Petrila
- Petroșani
- Uricani
- Vulcan

The Parang Area is especially beautiful with landscape towards the Retezat, Valcan and Sebes Mountains, having a transversal crest with peaks of 2073.6 m, Parangul Mic; 2460 m, Carja and 2518 m, Parangul Mare; the peak Bobea, 1850 m. The Rusu peak is located at the Parang Mountain feet (1168 m).

## CHAPTER 1

- Historical Overview

The JVR Region (JVR) represents a self-contained area of 954,3 km<sup>2</sup>, (0,4 percent of total surface of Romania), situated in the South-western part of the Romanian territory, with a total population of about 147,420, living in six cities: Aninoasa, Lupeni, Petrila, Petrosani, Uricani and Vulcan. The region is an economically distressed area and is generally known as one of the main Romanian mono-industrial mining area, severely affected by poverty.

Scientists confirmed that the ancient local people – mentioned in historic documents since 103-104, after Christ - were the mountaineers, inclined to preserve with severity their own goods, families and heritages. The basic occupation was the sheep growing. Mountaineers were interested in keeping all they rich only for them and for their community, as far as not allowing mixed marriages with individuals coming from outside the valley. Also, former mountaineers were cautious in accepting economic trade with the outside. This ancient behavior kept them away from commercial and, subsequently, social interplays. The former mountaineers, named by the Italians mining investors as "momarlani" (the "un-weaned people", because the basic beverage in the valley was the milk and its various refined products, obtained from the sheep), became a minority in the JVR today.

The coal was discovered for the first time in JVR in the early 1830. The local people were aware about the miraculous “burning black rocks” of the mountains, used for domestic purpose, in order to cook the meal or to warm their houses during the cold season. In 1782, the habitants burned up an entire coal hill situated inside the JVR, hoping to threat the Turkish armies away. The hill burned in open fire for over 14 years. After 1830, when Austrian, German and Italian mining investors discovered that the Valley has huge reserves of hard coal, the population increased in number and its social structure changed. Historical documents stated the common opinion in JVR was that the people from the Valley – the “Momarlani” - don't ever need others coming from outside. In this respect, all individuals which were brought in the valley in the early period 1856-1865, or in most recent period 1970-1975 - because of increasing mining activities -, were named "venetici", or "vinituri" ("foreigners"). This denomination contains euphemistic connotation, to which the "Momarlani" added some vexing denomination, defining the outside the valley people, established inside: "Barabe" – coming from the German "barauber" – thieves of construction materials.

In 1840, many mining companies – private and state owned - started their activities. The very first extracting activities – at the surface - were located in Vulcan, Petrosani, Petrila and were owned by the German “Hoffmann Brothers” and by a Romanian investor, Carol

Maderspach, from Brasov (inter-carpatian Romanian large city). In 1848, it began the industrial coal exploitation in JVR. In 1857, the first ton of coal was extracted and in 1868, from Petrița mine were extracted 843 tons of hard coal, using the work of only 65 miners. In 1873, the Romania state gave in concession - for the next 50 years -, to the “Mining Society” of Brasov, all the mining exploitations situated in the JVR. In 1889 was created the “Anonymus Mining and Coal Society”, in Uricani, controlled by the French Bank “Credit Lyonnais” and by the German factories “Oberschlesische kokswerke”. In 1892, May, the miners from Petrosani started to organize themselves in political associations and legal professional trade unions. The first general strike of the miners in JVR was registered between July, 17-30, 1892. The strike was endorsed by over 1,500 miners. At that time, every third miner was affected by the professional accidents.

During the World Wars, about 7,800 miners were already established in JVR. The work conditions were extremely difficult: the miners used to work on a daily work schedule counting about 13 hours per day, with only one hour break. In 1920, the miners’ mutinies forced the authorities to conclude the first legal working contract. The new working contract stated: 8 hours per daily work, free Saturdays and Sundays, and for hard working underground conditions – ex. high temperatures – the daily work was restricted to 6 hours. The miners’ revenues were the big salaries, preferential prices for basic food, oil and bread, and special facilities or benefits (in cash) for each family member of an underground working miner.

During the communist period, the mining activities represented the only industrial interest in JVR. The massive coal exploitation forced the central political authorities to bring in JVR a huge number of people. There were three major ‘waves’ of new brand miners coming to JVR: 1970’s, 1975’s, and 1976’s. Most of the “vinituri” or “Barabe” were delinquents and/or uneducated people, arrested or kept under permanent surveillance. Other fresh mining personal were individuals attracted by the big salaries and by the facilities given by the Romanian state.

In 1977, the JVR miners had the terrible courage to stand up against the communist regime, in order to ask better conditions of life and underground work. They stopped the work for several weeks – in alarm conditions - and asked for improved life and work conditions. They forced the former Romanian president, N. Ceausescu, to come down in JVR and obtained everything they wanted. Since then, the JVR the miners became a menacing and powerful professional community, with an enormous political influence after the fall of communist regime in Romania, in December 1989.

JVR’ miners have a long tradition in negotiating with the Romanian authorities. After 1989, their salaries were raised progressively and they get today the biggest salaries in Romania, comparing the other professional communities. Since 1990, in JVR appeared a new leader of the miners, Miron Cozma. He was a charismatic and powerful leader, authoritarian and unpredictable. His personal links with the political authorities made him a menacing leader,



which created the so called social phenomenon of the “mineriade”. These were violent miners’ marches to Bucharest, in 1990, 1991, and 1999, who had as result a tremendous international negative image emerging from Romania. The consequences of these political events included: the fall of the Government in place in 1991 and the suspension of the negotiations for the European Union accession. Moreover, the Miron Cozma’s “mineriade” was installing in Romania the general political instability, as recently as in 1999.

## CHAPTER 2

### Livability

Livability in Jiu Valley can be described in terms of human resources, migration phenomena, income poverty, and subjective well-being of its population. The purpose of the first chapter is to present the state of the Jiu Valley human resources by age structure, employment, and stock of human capital.

The economic and social life of Jiu Valley population is mainly related to mining and migration. On long term trends, migratory movements reflected fluctuations in the key economic activity of the Valley. An increase in the number of mining jobs and in the relative levels of salary brought in-migrants into the Valley, while layoffs resulted in unemployment and eventually population decreases by out-migration.

- Migration

#### **Permanent in-migration into Jiu Valley**

Over the past 10 years, the Jiu Valley population declined by about 15,000 people. The decline is related to a trend of out-migration, due to the decline of salaried employment in the mining sector of about 20,000 between 1992 and 2002.

At the same time, in-migration continued in Jiu Valley spite, so that about 14% of Jiu Valley existing in-migrants are of fairly recent date. The majority of fresh incomers were from Moldova and other counties of Transylvania undergoing a deep economic crisis.

Lifetime intraregional migrants (among localities of the Valley) account for about 7% out of the total Jiu Valley population, and represent about 17% out of the total migrants in the region. In the period after 1991, and especially after 1997, intraregional migration accelerated.

Out of the total population of the Jiu Valley of about 148 thousand inhabitants, 43% are in-migrants. As the major interest of this work is of economic nature, one will consider migration figures mainly for the segment of population that is of 15 years old and older. For this segment, the share of in-migrants is higher, of 52%.

In-migration into the Jiu Valley in the period after 1991 is, very likely, a phenomenon related mainly to marriage behavior. The migrants from that category are mainly housewives and unemployed living in blocks of flats. Irrespective of employment offer, the influx of migrants related to marriage and accompanying the active people will continue.

- Economic standard

### *Income poverty and dependency*

Based on estimates of income levels and sources, the share in households' total income of wages and agricultural products produced and consumed in the households are significantly lower in the Jiu Valley as compared to total urban areas levels. The share of social protection and in-kind benefits (cost-free or discounted services) provided by businesses, and particularly the National Company of Hard Coal, (CNH) are instead significantly higher.

#### **Structure of the household total income**

	Jiu Valley (2003)	Urban National (1998)
<b>Cash incomes</b>	<b>78.8%</b>	<b>85.3%</b>
of which:		57.3%
• Wages, bonuses	37.2%	
• Self-employment activities, properties and sales of		0.6%

commodities others than agricultural products	1.30%	18.8%
• Sales of agricultural products, animals, poultry	0.4%	14.6%
• Social protection benefits	36.6%	1.1%
of which:		3.1%
○ Social insurance pensions	22.9%	<b>14.7%</b>

Data source: Jiu Valley household survey (JVHS), Jiu Valley Association, May 2003. Urban national data come from NIS and UNICEF "Social Trends", Bucharest 2001.

The structure of households income is consistent with the occupational structure of the JVR population age 15 and above: significantly larger shares of inactive (particularly housewives) and unemployed people, combined with a significantly lower share of employed people. Compared with nation wide urban averages, housewives are three times as numerous and the unemployed almost twice as numerous, while workers represent one-half of total JVR employment, compared to one-quarter in other Romanian cities. Professionals, associate professionals, service workers and employers are instead overly under-represented. This makes of the Jiu Valley an area of working-class concentration.

#### Occupational structure of the population 15 years and above by city

	Total							Urban
	Aninoas Jiu							National
<b>Inactive</b>								
<b>population:</b>	<b>47.4</b>	<b>55.0</b>	<b>52.7</b>	<b>55.0</b>	<b>52.1</b>	<b>63.3</b>	<b>52.0</b>	<b>45</b> 12.7
Pupil/students	11.3	12.3	10.6	14.7	12.1	9.5	11.7	5.2
Housewives	10.5	14.0	17.2	19.3	16.2	22.4	14.6	23.1
Pensioners	23.6	27.2	22.9	18.7	22.2	29.9	23.9	4.0*
Disabled/ unable to work	2.0	1.5	2.0	2.7	1.5	1.4	1.8	5.7
<b>Active</b>								
<b>population:</b>	<b>52.6</b>	<b>45.0</b>	<b>47.3</b>	<b>45.0</b>	<b>47.9</b>	<b>36.7</b>	<b>48.0</b>	49.2**

Total	100	100	100	100	100	100	100	100
Valid N	1307	905	698	300	844	147	4201	

Data source: Jiu Valley household survey, Jiu Valley Association, May 2003. Urban national data come from NIS "AMIGO year 2001", Bucharest 2002, page 17, authors' computation.

- Life and place satisfaction

### *Assessment by component localities*

Satisfaction with the area of residence is a barometer of potential migration. The highest degree of satisfaction with the residence area is for Petrosani people and the lowest one for those in Petrila and Uricani. Infrastructure is a key factor in explaining the variation of satisfaction on the residence area. Quality of the housing seems to be the most important factor: if the person has a good perception on the quality of her/his dwelling it follows a high probability of having also a good perception of the whole residence area. Personal house and the nearby road seem to be the infrastructure factors of direct impact on the residential perception. Having a good house near a good road gives high probability of positive perception of the area having access to public services in short distances is also a significant factor for the residential satisfaction. But the livability as defined by residential satisfaction does not derive mechanically from the quality of the surrounding physical infrastructure and accessibility to public service. It is also the result of the capital structure of the household. Persons that are richer in network capital and in money tend to be more satisfied. Other purely demographic factors play also a role: women are more inclined than men to be satisfied with the residence and persons in larger families are also more positive about their area of residence. Education, ethnicity and marital status do not seem to be relevant.

Having an asphalted road close to the house is a factor that increases the probability of better perception of the area environment: 60% of the persons that live close to an asphalted road are satisfied with their ward compared to only 48% as is the case of those having dwellings close to a clay or gravel road. A variation of more than 20% points between the very dissatisfied people of Vulcan and Lupeni people living close to bad roads compared to the high satisfaction%age of people from Petrosani and Aninoasa that live close to good roads.

- Main problems

Public concern in the Jiu Valley is dominated by finding a job (as high as 40% of total interviewees in Lupeni). The second concern is related to bad roads: (highest complaints in Aninoasa), followed by access to the public gas system (major concern in Petrila and Uricani). The fourth issue mentioned by is pollution (especially in Vulcan).

Weak public institutions marked by corruption, lack of expertise, poor commitment to meeting public needs are also considered to be a serious problem in the Valley, with people in Petrosani and Vulcan among the most active in mentioning the issue.

Another topic mentioned as problematic is the lack of dwelling (in Petrila and Uricani especially), health services (Uricani) and the bad quality of the potable water (Lupeni).

**"What do you think is the main problem to be solved into your city?" (%)**

	LUPENI	PETROSANI	PETRILA	VULCAN	URICANI	ANINOASA	Total region
Lack of jobs	40.1*	26.5	23.4	21.5	18.2	16.5	26.8
Bad roads	14.7	17.0	15.9	17.6	4.5	35.4*	16.5
Lack of gas	6.1	14.6	22.5*	10.5	20.0*	10.1	13.6
Unclean environment	9.6	13.0	11.3	14.9*	5.5	11.4	11.8
Poor institutions, mal- functioning,							
Income, life cost	4.8	2.7	3.1	4.1	0.9	3.8	3.4
Lack of dwellings	2.1	1.4	6.9*	1.7	9.1*	1.3	3.1
Health services	1.1	1.3	0.3	2.8	14.5*		2.1
Water-bad quality or lack of	1.3*	0.2	0.3	0.8	0.9		0.6
Other	8.8	5.8	8.4	8.0	7.3	5.1	7.4
No problem	0.3	0.5	0.6	1.1	0.9	1.3	0.7
NA	8.0	7.8	5.3	6.3	12.7*	10.1	7.5
	100	100	100	100	100	100	100

Data source: Jiu Valley household survey, Jiu Valley Association, May 2003. \*

## CHAPTER 3

### Hard Coal Industry

The economic growth of the Jiu Valley Region (JVR) depends to a great extent on the competitiveness and prospects of the hard coal industry. Although the relative share of value-added generated by this industry to the total economy of the JVR has progressively declined from levels higher than 60 percent in 1999 to about 35 percent in 2002, about one third of the families living in the region still depend directly on the income of at least one of their members that are employees of the Hard Coal Company (CNH). The dependency of the JVR's economy on mining activities is further increased by the spill-over effects, with suppliers and some clients of the mining company also located in the valley.

The Romanian hard coal industry is characterized by a low intensity of competition, as measured in terms of strength of five basic competitive forces: internal rivalry; threat of entry; threat of substitution; bargaining power of buyers and bargaining power of suppliers.

The threat of new entry into the domestic hard coal industry is low as there are no new discoveries of hard coal deposits or profitable exploitations of the abandoned perimeters. The importers of hard coal represent the only credible threat. This threat may become serious if the price of imported hard coal were to fall below the price of domestic coal, as a result of the fierce price competition in world markets. The Romanian government plays an important role in this respect, through subsidies policies, regulations and ownership rights.

Mining activity has a major impact on the JVR environment, affecting directly or indirectly the soil, the water, and the air:

- Soil pollution is due to underground mining, open pits and preparation plant associated activities, and consists of: waste dumps on a surface of 2589 ha, holes of 20 to 80 m with degraded slopes on an area of about 85 ha where the mining activities stopped, and soil subsidence to a depth of 0.5 to 15 m and the serious instability of areas of more than 20 ha which render the land unsuitable for construction or agriculture;
- Water pollution is generated by mine waters discharged from underground and industrial water from the coal preparation process. The quantity of mine water discharged directly into the Jiu River varies between 1.6 m<sup>3</sup>/t/year and 6.8 m<sup>3</sup>/t/year, with solid suspension reaching 15,000 mg/l. The quantity of industrial

water, washing and flotation varies between 0,85 to 1,45 m<sup>3</sup>/ per tones of processed coal per year. The combined result is a high content of very fine clay material in the water, humus, and acids (3 to 5 g/l). Suspension varies between 30 – 100 g/l and are slightly acid (pH 6,0 – 7,5). The effects of this pollution are fully visible downstream the Jiu River. The dams and lakes of the hydropower plants built along the river (Rogojelu, Turceni and Isalnita) are half filled with residuum after only a few years of operation. The hydropower plant of Vladeni, in particular, can operate only 2 hours/day, due to the solid flow of 23.4 Kg/sec.

- Air pollution is due to both solid suspension in the air generated by CNH and the coal combustion at the thermal power plants. While it is difficult to evaluate the impact of CNH alone, the primary air pollutants are the acid gases, SO<sub>2</sub>, NO<sub>x</sub>, CO and CO<sub>2</sub> as well as the solid suspensions. Due to the geographical configuration of the JVR, the limited circulation of the air flows results in a microclimate characterized by a tendency towards atmospheric stratification and stagnation for long periods. The surveys in the JVR indicate a rate of deposited dust between 19.9 and 71.7 mg/m<sup>3</sup>/month, exceeding the admitted standards of 17 mg/m<sup>3</sup>/month. The highest concentrations were formed in the coal storage areas.

## CHAPTER 4

### Information and Communication Technology

Information and Communication Technology (ICT) infrastructure and services are assuming a key role in social and economic development. The evaluation of the level of development of this sector in the Jiu Valley Region (JVR) could bring new perspectives and solutions for the region's development.

The average penetration rate of the fix telephony in the JVR was 13.5 percent by the end of 2002, against an average penetration rate at national level of 19 percent. This low level is not caused by the limited supply capacity, but rather by the low demand for such services. In fact, during the last decade Romtelecom replaced the old phone public switches in the area with higher apacity digital equipment.

The only exception in the region is Petrosani, where the penetration rate is above the national average rate. However, this comparison may lead to false conclusions, as the national levels

include rural areas as well.

- Internet

Internet penetration at the level of households in the JVR is similar to the national averages of about 5 percent. Although the average penetration rate is 5.4 percent in the JVR, there are large access discrepancies among the different towns. The highest internet penetration level is in Lupeni of 6.9 percent, while no household has access to Internet in Aninoasa.

Internet penetration is limited in the JVR, both in the case of households as well as of firms due to the high access costs, the limited number of computers and computer literacy in the JVR. The main reason remains the high cost due to Romtelecom pricing policy. The increasing number of computers and the availability of online public services could lead though to a higher demand for internet access that, in turn, can help develop a more competitive market.

- Electronic commerce

The most important example of B2B in the JVR is the use of the national e-procurement system “e-licitatii” (<http://www.e-licitatii.ro>). CNH (<http://www.cnh.ro>) is one of the most active participants, not only for the JVR, but at the national level too. Even though it may be difficult to state that the new system has led to financial savings, improvement of the quality of the offerings and less problems for the company are clear achievements. The company would like to have the opportunity to extend the system for procurements of services (i.e. transportation services). The potential bidders within the JVR were trained on how to use the e-licitatii system by the local Chamber of Commerce in August 2002. Also, the company seems to be very open in providing information and informal training to any new potential provider.



- ICT culture and the demand for ICT services

The JVR is a geographically isolated area. Paradoxically, this situation is also well reflected in the ICT culture of the population and its approach regarding this sector:

New technologies are not accessible, especially for young people. Only about 26 percent of the schools in JVR are connected to Internet (11 schools out of a total of 42).

The general level of computer literacy and comfort with ICT is low. Computer culture that would make young people in the work force comfortable using IT has not been developed yet. Since there are no specific efforts to make computers more accessible to students and generally to young people, this situation is not going to be improved.

Most of the public services continue to use the manual procedures, where the usage of the IT systems is very rare. Even if some organizations (public or private) made efforts to purchase new equipment, the old manual procedures have not been reengineered and the effects of the usage of computers are very discrete. Both public and private sectors use the computer for simple functions such as word processing, basic accounting, or other office applications. Almost none of the visited or surveyed units (public or private) have local networks, use an automated inventory-management system, employed computer-aided design, or made other sophisticated use of the IT.

Information and Communication Technology is underused both in the private and public sector in the JVR. Impediments to development include the lack of demand for ICT services and professionals, undeveloped important industries, banking systems and poor connectivity.

Opportunities for ICT development include small niche firms selling services such as software development, and larger firms selling data entry or operating call centers. However, in the JVR the sector is still in its infancy and several challenges have to be overcome before it can deliver good quality services. These include the increased usage of IT as a business tool within the public and private sector; development of skilled IT professionals; establishing an environment in which services to the IT sector can develop, and improving the infrastructure by adding data network infrastructure.

ICT can play a double role in the region's economic and social development. First, e-Development can help streamline public administration and facilitate the interaction between the public sector and citizens and firms. Second, ICT may offer potential for economic growth in the region, leveraging technology to promote entrepreneurship and growth.

## CHAPTER 5



### Labour Market Analysis

The following assessment is looking at the functioning of the labor market from three main dimensions: (1) the overall performance measured through standard static indicators; (2) the dynamics of paid job creation; (3) the role of labor market institutions in the overall performance.

The main conclusion is that the JVR (Jiul Valley Region) has a particularly tight and segmented labor market, with weak and volatile job creation. This originates in the shortcomings of both demand and supply, with the very low job creation and lack of entrepreneurship prevailing over other potential causes.

#### **A. The labor force participation and structure**

1.3. The labor market in the JVR is very tight, with lower activity and employment rates than at the national (urban) level. The dependency rate (2.21 unemployed and inactive people for 1 employed person, as compared with 1.4 at the urban level Romania) is overwhelming.

1.4 The younger echelons of the population (15-24 years of age) in the JVR have higher participation rates in front of average unemployment rates, hence with a fairly low level of idleness. This is a signal that in a labor market where jobs for professionals are scarce and wages for skilled workers are among the highest, the incentives for school drop-out is high and might hinder the future of the region.

1.5. The skilled workers with no more than high-school education have better chances to get a job in the area, compared to the overall urban areas in Romania. They also have among the highest wages, within or outside the CNH.

1.6. The average wage in the region is not significantly different from the national average (even outside CNH), but its polarization supports the hypothesis of a severely segmented labor market. CNH employment ensures a much higher wage, followed by gender (male), marital status (married), position as manager and education. Activity in a private company and appartenance to various professions as non-skilled, services worker or clerical worker are influencing negatively the wage growth.

1.7. As compared with overall Romania – urban areas, the JVR appears as a close homogeneous region with availability of relatively lower-skilled workers and relatively

higher average wages. The need for redistribution (be it from Government or family) dilutes revenues and increases poverty levels.

## **B. The paid job creation and destruction – the characteristics of reallocation**

1.8. Traditionally, the entire economic activity in the JVR area gravitates around the mining activity. Suppliers of the mining units are present in the region, as well as basic services catering to the needs of the local population, but no other highly developed activity offering outstanding alternatives to mining, in terms of both revenues and job stability. In 1997-98, a comprehensive restructuring program substantially reduced employment in mining activities, not compensated by real opportunities for labor market participation of the laid-off workers.

1.9. In the strongly mono-industrial and relatively closed economic environment of the JVR, the decline in mining activities caused an aggregate supply shock, with high transitional unemployment and a slowing down of new jobs creation.

1.10. The associated drop in overall revenues further depressed activities in services addressing local market and lead to a decline in paid employment in these activities too. The demand-lead decline in employment further damages the labor market situation. From the labor market point of view, the region is captive to a low-revenues/ no-jobs trap.

1.11. The analysis of the evolution of paid job creation and destruction points towards a weak job creation located mainly in tradable sectors, with products addressing other markets and taking advantage of the local cheap labor. The region seems suitable for productive and outsourcing activities in sectors intensively using unskilled or lower- skilled labor. The private sector is the only net creator of jobs. The public sector still holds the highest share, only due to the presence of CNH.

1.12. The profile of the main employers reflects the specialization of the area: mining, water management and distribution of thermal energy, industrial construction, machinery and equipment for mining and construction, road transportation and related activities on one hand, and some activities in wood processing and clothing on the other.

## **C. Labor market institutions**

1.13. The functioning of the labor market institutions interferes with the characteristics of the market. The very tight labor market creates the premises for the often violation of the basic rights of the labor outside the mining sector, given the very weak

enforcement of the labor regulation.

1.14. The segmentation of the labor market is mirrored by the development of the unions' movement. The mining sector is strongly unionized, with still significant insider-type behavior, while in the rest of the companies, the unions' presence and role is very weak.

However, the existing unions are aware of the need to accumulate membership and support from the new private sector, and the development of a regional unions' movement independent of the mining sector is highly possible.

1.15. The ALPM (Local Agency for Market Policy) policies and the specific poverty reduction instruments applied in the JVR, have a positive input at least for two reasons. First, these might be one among the very few possibilities for local entrepreneurs to capitalize at minimum possible economic risk. Second, these instruments might represent some of the only few stimulus for job creation

1.16. The question arises on the longer-term impact of the current design. On the short term, even a volatile job creation positively impacts on the poverty. The impact on the economic structure and on the durable development of the region is nevertheless much more ambiguous.

1.17. Since the incentives for job creation are more easily available than other means of capitalization, this might encourage the entrepreneurs to seek labor intensive activities. We believe that in poorer regions like the JVR, where the employment agency has an important role and weight in total job creation, the employment schemes should be more balanced towards the quality of jobs created, and should be plugged to the competitiveness enhancing strategies of the region, rather than to the job creation for its own sake. However, local agencies would need more flexible instruments and fewer regulatory constraints.

1.18. This role can be played by public-private partnerships in other initiatives such as the "Mine Closure and Social Mitigation" project, financed by the Romanian government and the World Bank. Some components of the project are currently put into place, but several shortcomings need to be solved before a positive impact is felt.

#### **D. Conclusions and recommendations**

1.19. The overall institutional setting as well as the behavior of the labor market in the JVR is reflecting and accommodating the region's main dysfunctionality, the lack of stable job creation. From the enterprises in the survey, 74 percent of the respondents had no vacancy for a technician and professional over the last two years, and 65 percent had no

vacancy for a production worker. From the sub-sample of the economic agents that hired over the last two years, 80 percent filled-in the vacancy for technicians and professional and 72 percent for a worker in less than 15 days. The exception is the IT sector where the average duration of filling a job for a professional is 35 days. At the same time, despite the efforts of governmental agencies and successes reported in creation of new jobs, the total turnover can not be controlled, and the number of the unemployed remained fairly stable (number of unemployed: March 2002, as per census data: 11,656; May 2003, as per survey data: 11,950).

1.20. The policy recommendations resulting from this analysis fall into four categories. First, there is a need to strengthen the institutional capacity of local authorities in elaborating comprehensive development programs based on longer term strategies, and search for funding. To this end, participation to competitive biddings and effective involvement of the local stakeholders into the elaboration and implementation of these programs will be paramount.

1.21. Better enforcement of the labor market regulations might increase the benefit of the workers from the participation to the labor market. To this end, the authorities need to better strike a balance between encouraging economic activity and insuring the fair distribution of profits and welfare.

1.22. Second, the surveys results and the interviews, with both institutional partners and with the unemployed show that the population find it difficult to acknowledge, evaluate and fully support all the possibilities available on the market to alleviate the poverty, both inside or outside the labor market. Again, a need for integration is clear, and the local authorities need to strengthen institutional capacities for such purpose. The construction of a 'sole-office' for consultancy offered to population in need, might be an option.

1.23. Third, the role of the local training centers needs to be enhanced, possibly through the implementation of more flexible training schemes, a reduction of the bureaucracy in the local agencies, and increased availability of information.

1.24. Fourth, enhancing the local entrepreneurship: programs that are oriented towards education for entrepreneurship, business consultancy, and dissemination of information are to be prioritized in order to enhance job creation within the region. Another possibility could be to organize training courses with graduation prizes in start-up grants, possibly within the Lonea Business Center.

## CHAPTER 6



### Education

#### Education institutions in JVR

##### ➤ Aninoasa

Elementary schools	<p>The two primary/elementary schools are located in the northern section of the city and one is located in Iscroni. In these two schools there are 700 students and 38 teachers teaching in 16 classes. There are also sport classes in each of the two schools and a workshop at the school from Aninoasa</p> <p>Primary/elementary school - Sf. Varvara Aninoasa</p>
Kindergartens	<p>Two of the City's nursery schools are located in Aninoasa and one is located in Iscroni. All the 3 kindergartens have 8-12 teaching staff and a number of 130 children.</p> <p>Kindergarten Aninoasa, Libertatii Street, nr. 87</p>

##### ➤ Lupeni

Three primary/elementary schools	<p>Elementary Schools No. 1</p> <p>Elementary Schools No. 2</p> <p>Elementary Schools No. 3</p>
Uppersecondary school	<p>Two upper secondary schools (high school - grades 9 to 12 and technical and vocational school which include apprenticeship classes, vocational education classes, technical high school classes and foremen classes)</p>
High schools	<p>Theoretic High school of Lupeni (Liceul Teoretic)</p> <p>Technological School Cluster Lupeni (Grupul Scolar Industrial Miner)</p>

Nursery	Kindergarten no. 1
Schools/Kindergartens	Kindergarten no. 2
	Kindergarten no. 3
	Kindergarten no. 4
	Kindergarten no. 5
	Kindergarten no. 6

➤ **Petrila**

Primary and Lower Secondary Schools (Scoli Primare si Generale)	Scoala generala nr.1
	Scoala generala nr.2
	Scoala generala nr.3
	Scoala generala nr.4
	Scoala generala nr.5
TVET schools	Industrial School cluster for machines manufacturing (Grupul scolar industrial constructii de masini )
Kindergartens (Gradinite)	Gradinita Nr 1
	Gradinita Nr 2

➤ **Petrosani**

University of Petrosani	Faculty of Mines
	Faculty of Sciences
	Faculty of Machines and Electromechanical Equipment
High schools and TVET schools	Theoretical High school (Liceul Teoretic)
	Computer science High school (Liceul de Informatica)
	School Cluster for Economics, Administration, and Services (Grupul

Post secondary	"Carol Davila" postschool for nurses (Scoala Postliceala "Carol Davila")
Primary and lower secondary schools	Scoala nr. 2 Scoala "Dalja Mare" Scoala Slatinioara: str.Slatinioara Scoala "I.G.DUCA" Scoala Maleia Scoala Pestera Bolii Scoala nr. 4 Daranesti
Nursery Schools/Kindergartens	Gradinita nr.1 Gradinita nr. 2 Gradinita Scolii nr. 2

➤ **Uricani**

Lower Secondary Schools (Scoli Generale)	Scoala Generala Nr. 1 Scoala Generala Nr. 2
Kindergartens (Gradinite)	Gradinita in cadrul Scolii Nr. 2 State Placement center (Centru de plasament de stat) Private Placement center (Centru de plasament privat)

➤ **Vulcan**

Primary/elementary schools	General School Nr.1, Vulcan General School, Nr. 2 Vulcan General School nr. 3 Vulcan General School nr. 4 Vulcan General School nr. 5 Vulcan General School nr. 6 Vulcan
One TVET school cluster	Technological School Cluster "Mihai Viteazu"
Kindergartens: six	



## CHAPTER 7



### Overview of the region and need for reform

The JVR represents a geographically self-contained area of approximate 1,000 km<sup>2</sup>, with a total population of 147,735 and an urban area formed by a cluster of six cities. The JVR is an economically and socially distressed area, which has been almost entirely dependent on hard coal mining for its historic growth and economic viability. The economy and the living conditions of its inhabitants have been severely affected by reforms undertaken in Romania after 1990, transforming the population from one of the richest within the country into a below-average one. Restructuring of the coal mining industry further aggravated the economic dislocation caused by the country's ongoing transition to a market economy. The Jiu Valley floor and its mining settlements are characterized by degraded and high density housing; craterlike industrial landscapes and rock piles; rundown pit workings; aged and ugly industrial structures, mostly abandoned; corroded plant and machinery; voluminous metal scrap; and highly polluted river and water courses.

- **“Mineriade”  
chronology**

- January, 28, 1990 – Anti-governmental manifestation in Petrosani. Street fights between the miners and the left-wing Government supporters;
- January, 29, 1990 – The first “mineriada”: about 5 000 miners are marching from JVR to Bucharest, in order to “defend” the Government building;
- February, 18, 1990 – The miners are destroying parts of the Romanian Government building;
- February, 19, 1990 – The second “mineriada”: over than 4 000 miners are coming to Bucharest, in order to sustain the governmental forces, in their fight with the civil society groups, formed by students and anti-communist supporters.
- May, 20, 1990 – Mr. Ion Iliescu is re-elected as President, with 85,1percent votes. June, 13, 1990 – The police forces started a rapid and violent intervention to spread out the anti-communist manifestation in downtown Bucharest (Piata Universitatii). The fight between the protestors and the Police forces provoked many damages. The public television aired live transmissions from Bucharest, showing the damages caused by

the street fights. On the public TV channel, Romanian president Ion Iliescu called for the miners to support him in “defending the democracy and reinstalling the order in the country”.

- June, 14-15, 1990 – The third “mineriada”: thousands of miners are coming in Bucharest, in two trains. The Romanian President asked them publicly to “clean” the Piata Universitatii. The University building is devastated, also the headquarters of the historical political parties and the newrooms of the main print media outlets. Bucharest city was under terror.
- September, 23 – 27, 1990 – The fourth “mineriada”: The Cozma’s miners asked again for a raise in their salaries. They devastated Petrosani city and went to Bucharest. They took under control the Romanian Parliament building and tried to get also the public television and the presidential headquarters. The prime-minister Petre Roman was forced to resign.

January, 1999 – The fifth “mineriada”: Cozma’s miners tried again to reach Bucharest, but President Emil Constantinescu declared “emergency situation” in Romania and called the army to stop the miners’ march toward the Capital. The military tanks stopped the march of the miners. Prime-minister Radu Vasile was forced to negotiate with Cozma, at the Cozia Monastery, situated at only 200 km away from Bucharest. He convinced Cozma to take back his miners to the JVR. During the following night, special forces arrested Miron Cozma while he was trying to escape Romania. He was judged in 1999 and put to prison for the next 18 years.

- Declining  
Competitiveness

The overall competitiveness of the Jiu Valley Region is lower than of the rest of Romania, and it continues to decline on all four competitiveness assessment categories: economic structure; resources; territorial endowment, and institutional milieu. Jiu Valley is a region where weaknesses have overwhelmingly taken over the strengths and opportunities, where the threats are serious and the community is losing hope and flexibility for adjustment.

- **The Hard Coal Mining Industry**

For decades, the main driver of the economy of the Jiu Valley Region was the hard coal mining industry, still accounting for more than half of total labor wages and for one third of the value-added creation. With 75 to 80 percent of total employee wages dependent upon the evolution of the coal extraction sector, the labor market became inflexible and unable to generate job opportunities. Moreover, given the initial mono-industrial structure, the business environment in the JVR is underdeveloped, characterized by immature behavior of economic agents, an underdeveloped business infrastructure and culture, and scarcity of management and financial resources.

### Economic Composition

The JVR has long operated under a mono-industrial structure, with the hard coal mining industry as the driving force behind the majority of economic activity. Although this industry has been in a severe state of decline in recent years, the region continues to exhibit a high dependency towards mining activities, with one third of families in the region relying on mining as a source of income. There remains a horizontal spill-over effect as the firm is located in the same region as its suppliers and several clients. These issues have impeded the region's ability to adjust or to establish a new system of economic development.

#### Annual Growth Rate (1998 constant prices)

		1999	2000	2001
<b>Industry</b>	JVR	4.01 ~ 13.24	-17.59 ~ -9.19	-29.53 ~ -31.06
	ROMANIA	-1.5	4.6	7.9
<b>Overall Economy</b>	JVR	15.01	-2.51	-15.27
	ROMANIA	-0.4	2.7	5.5

In spite of the recovery registered by the economy and industrial sector after the year 2000, the JVR has registered poor economic results as its focal industry underwent a major process of restructuring. The high level of specialization in hard coal extraction, combined with the absence of other economic drivers, (such as industries with potential horizontal impact), was responsible for this contrast in performance. This is compounded by the fact that the share of the service sector in the JVR economy is much lower than the national average.

## Financial Market

Financial resources are scarce in the Jiu Valley. Irrespective of ownership, inner-Valley resources are quasi-nonexistent. Local investors are small and generally recently established, and the local administration fails to collect its required revenue and does not receive direct support from the central authorities. The main manager of financial resources in the Valley remains the NHCC, which utilizes subsidies in order to control the redistribution process among inhabitants.

## Labour Market

The labor market is segmented and not flexible, characterized by: high dependency rate and very low occupation rate; high level of wages as compared with the national standards; high share of non-wage forms of labor payment; and high rate of unemployment, especially among the younger population. These characteristics reflect and maintain in the same time the main dysfunction of the labor market, namely the lack of stable jobs.

## **Unemployment**

The collapse in mining activities and corresponding drop in revenue have had a significant impact on the region's overall employment level. This has been reflected in services activities that support local markets which have been severely depressed and are experiencing declining levels of employment. From a macro perspective, the Jiu Valley is encapsulated in a low-revenue / no-jobs cycle.

## Human Resources

The quality and quantity of the Jiu Valley Region human resources have deteriorated during the last years. Most demographic trends are negative: declining rate of the population; declining rate of the participation; increasing dependency rate; declining health status,

increasing mortality rate, declining fertility rate and increasing infant mortality.

## Population Decline

The Jiu Valley Region represents a geographically self-contained area of about 1,032 km<sup>2</sup> with a total population of about 147,735 inhabitants. The JVR is formed by a cluster of six cities. In decreasing order of their population, they are: Petrosani, Lupeni, Vulcan, Petrila, Uricani and Aninoasa.

Almost all towns of JVR are characterized by central and peripheral areas (except for Lupeni) determined by their population demographic characteristics. The central areas, known as human “colonies,” were populated in waves during the last century by the in-migrants attracted by the flourishing mining industry. Peripheral areas are inhabited predominantly by a population of traditional farmers called “momarlani.” Seven out of such 13 peripheral areas are very small settlements with no more than 300 inhabitants.

The main demographic trend that has emerged is a sharp population decline. The number of inhabitants decreased by 9.3 percent during the decade between the two most recent censuses, (1992 and 2002). This is a significantly higher rate of decline than observed in other urban areas in Romania and compares with a national average of 7.7 percent. The higher decline is more relevant in JVR than for other urban areas since the JVR cannot utilize neighboring rural areas for survival strategies during periods of economic decline.

The pattern of population decline is unevenly distributed among the cities of the JVR. The reduction in the number of inhabitants peaked in the Uricani area (16 percent), while the lowest decline was recorded in Lupeni (4.5 percent). The sharpest declines were recorded in smaller settlements, characterized by a higher density of “momarlani.” The demographic decline was not significant for the central areas with a high concentration of in-migrants. The decline of the population is caused mainly by out-migration. Based on the two censuses done in 1992 and 2002, around 32,000 persons out-migrated the region.

## Health Status

The health status of the population in the JVR, as well as in the whole county of Hunedoara, shows a steep deteriorating trend since the early 1990s as a result of the economic decline. Within the Hunedoara county, JVR ranks among the areas with the most risky and unsafe work conditions. The number of work accidents in Hunedoara county, over the last decade, represented about one quarter of the total work accidents in Romania. Most of these work accidents were registered in the mining industry of JVR. Additionally, although declining in the last years, the share of hospitalized days per person in the total population for the region remains one of the highest in Romania.

Hunedoara county and JVR recorded rates of morbidity higher than the national average in the case of heart/circulatory diseases, tumors (often related to professional diseases) and accidents. Consequently, the life expectancy is situated below the average in Romania, generally by 1-2 years, depending on the gender and year of birth.

# Employment Opportunities in Europe

## The University of Petroșani

The University of Petroșani is an academic education institution whose beginnings date back in 1948, when, as a result of the publication of Decree no. 175/1948 for education reform in Official Gazette no. 177/ August 3, 1948, and of the minister's of Public Education Decision regarding the organization of higher education, published in Official Gazette no. 249/ October 26, 1948, the following education institutions were founded: the Institute of Geology and Mining Technique Bucharest, consisting of two faculties (Geology; Mining Technique); the Institute of Ferrous Ores Timișoara; the Institute of Non – ferrous Brad; and the Coal Institute – Faculty of Mining and Processing of Coal Deposits - at Petroșani with a duration of academic studies of 4 years. In 1952 the two Institutes in Timișoara – descendant of the Faculty of Mining and Metallurgy of the Polytechnic School Timișoara – and in Brad cease their activity, their students being transferred to the Mining Institute in Bucharest, resulting from the merger between the Institute of Geology and Mining Technique Bucharest and the Institutes of Ores in Timișoara and Brad.

The foundation of the Coal Institute at Petroșani in 1948 represents an important moment in the social, economic and cultural life of the Jiu Valley, proving, from a historical perspective, beneficial both for our area and for the general evolution of Romanian economy, with particular emphasis on the field of mining. The higher education establishment at Petroșani has not appeared on an arid ground.

There was already a tradition of higher mining education in Romania, beginning with the decree of king Alexandru Ioan Cuza in October 1, 1864 regarding the foundation, in Bucharest, of the School of Bridges and Highways, Mines and Architecture, and, later on, the decree of king Carol I in October 30, 1867 for the setting up, in Bucharest, of the School of Bridges, Highways and Mines, with a duration of academic studies of five years and two departments: the Department of Bridges and Highways; the Department of Mines. The School is organized on modern principles beginning with 1881; it didn't specifically train mining engineers, but a number of the graduates of the School of Bridges and Highways – beginning with 1888 the National School of Bridges and Highways – acknowledged after 1890 as third rank engineers, worked in mining units in the country.

Mining higher education enters a new stage in the interwar period. Thus, on June 10, 1920, King Ferdinand signs the Decree – Law no. 2521, by which it approved „, the setting up and

organization of Polytechnical Schools in Romania” as „technical higher education institutions, culturally assimilated with universities. Their goal is the training of engineers and depend on the Ministry of Public Affairs”. The first such school was the Polytechnical School of Bucharest, set up by the transformation of the National School of Bridges and Highways, with four specializations, among which that of „Mining and Metallurgy”; the royal Decree no. 4822/ November 11, 1920, stipulated, in accordance with the Decree – Law no. 2521/ June 10, 1920, the setting up, beginning with November 15, 1920, a Polytechnical School of Timișoara with two departments: a. Electromechanics; b. Mining and Metallurgy. By the Law of November 4, 1938, regarding the change of the laws regarding higher and special education, the departments Mining and Metallurgy of the two Politechnical Schools turn into Faculties of Mining and Metallurgy, where, besides the fundamental subjects imposed to all the faculties, special subjects are also taught. Mining higher education will function with this structure until 1948.

On the other hand, the Jiu Valley was one of the few industrial, highly urban areas in Romania, thus displaying the conditions for hosting such an institution. It was also a strong industrial center with top specialists, which provided a suitable framework for applied education.

The Coal Institute in Petroșani opened up on la December 7, 1948 with 135 students in the first year of study (entrance exam), as well as the second and the third (transferred from the Faculties of Mines of the Polytechnic Schools in Timișoara and Bucharest). The Institute had one department: “The mining and processing of coal deposits”, its dean being Prof. Vasile Poboran, assisted by 28 academic staff, of which only 8 held tenure in the Institute. In academic year 1949-1950 a new department is set up: “Mining electromechanics”, and in academic year 1951-1952 the department of “Mining survey”. In academic year 1949-1950 the Coal Institute yields its first class of graduates, consisting of 35 de mining engineers.

With the reorganization of higher mining education in 1952, the Coal Institute changes into the “Mining Institute Petroșani”, its activity developing in two departments:

Mining Operations, with specializations:

- a. Mining Operations;
- b. Mining Survey;
- c.Processing of useful minerals; Mining Electromechanics.

The diversification of fields and specializations after 1990 brought about major changes within the higher school in Petroșani and, consequently, technical education continues alongside with the emergence specializations in the field of economy, mathematics socio – humanistic, computer processing, and public administration. This will also determine a change of name,



which reflects both a management, and a content change.

Thus, by the Order of the Minister of Education no. 4894/1991 the Mining Institute in Petroșani – consisting of two faculties: the Faculty of Mining Engineering and the Faculty of Electromechanical Machines and Installations, and the Academic Technical and Administration College in Petroșani, founded in 1990 – changes its name into the “Technical University of Petroșani”.

Beginning with 1995, by H.G. no. 568/1995 the Technical University of Petroșani becomes the University of Petroșani, consisting of three faculties: the Faculty of Mining Engineering, the Faculty of Electromechanical Machines and Installations, the Faculty of Sciences and the Academic Technical and Administration College.

At present, as by Law no. 288/2004, short term higher education such as the one developing within the Academic College was gradually removed, the University of Petroșani consists of three faculties.

### **The Faculties within the University of Petroșani**

1. The Faculty of Mining Engineering 1948
2. The Faculty of Mechanical and Electrical Engineering 1957
3. The Faculty of Sciences 1993

The mission of the University of Petroșani is education and research within the European context.

The University of Petroșani takes on a fundamental role in the creation and treasuring of cultural and civilization values, the promotion of scientific research, the participation of Romanian culture and civilization to the world circulation of material and spiritual values, the assertion of our national cultural identity and the development of the Romanian society within a free and democratic state.

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Since its foundation in 1948, and especially after 1957, the University of Petroșani has had the mission to train graduate specialists for all the fields of activity specific for the mining industry, as well as for activities with mining character in other industrial branches, or in other branches such as: mining machines and installations, technological equipment, energetics and process automation. Besides the training of the staff necessary especially for the Romanian mining, the higher education institution in Petroșani specialized staff for the above mentioned fields for about 20 countries in Asia, Africa, South America, North America and Europe.

It should be pointed out that, the training of over 35,000 graduates, mainly in the technical field, but also in the field of economy, mathematics, and socio – humanistic studies in the history of over 60 years of the University of Petroșani, required a strong material basis: teaching facilities consisting of course and seminar rooms, as well as laboratories; the library, having over 304,000 volumes: reference, technical, fiction books and journals; a workshop for practical training; a sports complex, consisting of a gym, a stadium, football and tennis grounds; students hostels, cafeteria, guest rooms, the Academic Staff House, practical training facilities in the Parâng Mountains and at Câmpu lui Neag.

Highly skilled academic staff has been formed at the same time, which provided part of the staff that, after 1990, started new technical, economic, mathematical, socio – humanistic, and data processing specializations, which constitute at present the Faculty of Sciences.

The new social, economic and political context after December 1989 allowed a constructive approach regarding the expanding of fields and specializations within the University of Petroșani. As a result, the educational offer expanded every year, so that, at present, the University provides, in graduate studies, 26 academic programs de (specializations), of which 17 are validated, within 22 fields of study.

At the same time, the offer of graduate and post – graduate studies has constantly diversified, so that in academic year 2008-2009 there are 27 academic programs (specializations), in 17 fields.

Further training by doctoral studies represents the third advanced academic training cycle. The University of Petroșani is validated as an organizer of doctoral studies and ensures, through the Doctoral and Continual Training Center, doctoral studies in the field of Engineering, with the following specializations:

- 1.Mines, oil and gases;
- 2.Industrial Engineering;
- 3.Electrical Engineering;
- 4.Systems Engineering.