CZECH UNIVERSITY OF LIFE SCIENCES PRAGUE

Faculty of Economics and Management

Department of Economics



Bachelor thesis

The analysis of unemployment development in a selected region

Ariuna Sukheeva

Supervisor: Assoc. Prof. Ing. Mansoor Maitah, Ph.D. et Ph.D

©2016 CULS Prague

CZECH UNIVERSITY OF LIFE SCIENCES PRAGUE

Faculty of Economics and Management

BACHELOR THESIS ASSIGNMENT

Ariuna Sukheeva

Business Administration

Thesis title

The analysis of unemployment development in a selected region

Objectives of thesis

The aim of the thesis is to conduct the analysis of unemployment development in a selected region. The selected region will be Russia.

Methodology

The thesis will be divided into two parts. The first one is a theoretical part and the second one is a practical part. Descriptive and comparative methods will be used in the thesis.

The proposed extent of the thesis

40 – 60 pages

Keywords

unemployment, labor market, inflation, gross domestic product, Russia

Recommended information sources

Holman, R. 2080-02. Economy: 3rd actualised edition. Prague. C.H. Beck.s.714. ISBN 80-7179-681-6
 Jirova, H. 1999. Market Labor and Employment Policy. Prague. High School Economy.S. 95. ISBN 80-7079-635-9

Varian, Hal R. 1992. Microeconomic Analysis (Third Edition). New York: Norton. ISBN 0-393-95735-7

Expected date of thesis defence 2015/16 SS – FEM

The Bachelor Thesis Supervisor doc. Ing. Mansoor Maitah, Ph.D. et Ph.D.

Supervising department Department of Economics

Electronic approval: 3. 3. 2016

prof. Ing. Miroslav Svatoš, CSc. Head of department Electronic approval: 3. 3. 2016

Ing. Martin Pelikán, Ph.D. Dean

Prague on 09. 03. 2016

Official document * Czech University of Life Sciences Prague * Kamýcká 129, 165 21 Praha 6 - Suchdol

Declaration

I hereby declare, that I have worked on my bachelor thesis titled "the Analysis of unemployment development in a selected region" by myself and I have used only the sources mentioned at the end of the thesis.

In Prague on 11.3.2016

Ariuna Sukheeva

Acknowledgement

I would like to thank my supervisor Assoc. Prof. Ing. Mansoor Maitah, Ph.D. et Ph.D for the great support, advices, and suggestions during my work on this thesis.

The analysis of unemployment development in a selected region

Souhrn

Situace na trhu práce je jedním z hlavních faktorů ekonomiky v jakékoliv zemi, který ovlivňuje ekonomický růst a rozvoj. První cíl mé bakalářské práce je popsat vývoj nezaměstnanosti v současném Rusku, identifikovat příčiny, následky a strukturu jevu. V současné době se projevuje rostoucí potřeba znázornit mechanismy nezaměstnanosti v době nyní probíhající finanční krize v Rusku a v případě ekonomické krize v roce 2008. Ale na začátku je nutno vymezit pojem nezaměstnanost v ekonomickém a všeobecném pojetí. V teoretické části bakalářské práce budu povídat o hlavních typech nezaměstnanosti, popíšu ukazatele, které zjišťují míru nezaměstnanosti a pokusím se vymezit faktory, které ovlivňují dynamiku nezaměstnanosti. Druhý cíl je analýza změn míry nezaměstnanosti v Rusku za posledních 15 let s odledem na dané faktory.

Summary

The situation in the field of employment is one of the main factor in the economy of any country, influencing economic growth and progress. The first aim of this bachelor thesis is to describe the development of unemployment in modern Russia, identify the causes, effects and structure. There is a growing need to understand the mechanisms of unemployment in Russia in the course of the current financial crisis and crisis in 2008. But firstly it is necessary to determine what unemployment is. In the theoretical part of bachelor thesis there are main types of unemployment, description of indicators that measure the rate of unemployment and identifications of factors that affect the dynamics of unemployment. The second aim of bachelor thesis is to analyze how the unemployment rate in Russia has changed, depending on these factors, for last 15 years.

Klíčová slova: nezaměstnanost, zaměstnanost, míra nezaměstnanosti, příčiny, pracovní síla, Rusko, finanční krize, trh práce, inflace.

Keywords: unemployment, employment, rate, causes of unemployment, workforce, Russia, financial crisis, labor market, inflation.

CONTENTS

	List of figures	3
1	Introduction	5
	1.1 Purpose and objectives	6
	1.2 Methodology	
2	Theoretical part	8
	2.1 Labor market	8
	2.1.1 Theoretical definition of the labor market	8
	2.1.2 The supply for labor	9
	2.1.3 The demand for labor	11
	2.1.4 State of equilibrium on the labor market	12
	2.1.5 The institutional aspects of the labor market	13
	2.1.6 The segments of the labor market	13
	2.2 Unemployment	14
	2.2.1 Basic terms	14
	2.2.2 Classical theory of employment	16
	2.2.2.1 Keynessian theory of employment	17
	2.2.2.2 Practical implementation of the Keynesian theory of employment	
	2.2.2.3 Extensions of Keynessian model	
	2.3 Types and reasons of unemployment	20
3	Practial part	
	3.1Development of unemployment in Russia	
	3.2 Indicators and methods for measuring the unemployment rate in Russia	
	3.3 Russia as the legal successor to the Soviet Union	
	3.4 Geographical distribution of the unemployment	
	3.5 Migration in Russia	
	3.6 Seasonal component of unemployment in Russia	
	3.7 Unemployment by age group	
	3.8 Unemployment related to the education	
	3.9 Comparison between Moscow and the rest of country	39
4	Conclusion	44
5	References	46

List of Figures

Figure No. 1: Graphical illustration of labor supply curve
Figure No. 2: Graphical illustration of labor demand curve
Figure No. 3: Graphical illustration of labor market equilibrium
Figure No. 4: Graphical illustration of normal population decline in Russia and the rise of immigration
Figure No. 5: Unemployment in the USA and UK in 1890 – 1940
Figure No. 6: Unemployment in Russia from 1992 to 200027
Figure No. 7: Dynamic of GDP in Russia from 1995 to 2015 at 2008 prices
Figure No. 8: Geographical distribution of the unemployment in Russia 2015
Figure No. 9: Rate of natural increase in Russian regions in 2012
Figure No. 10: Dynamic of migration in Russia from 2003 to 201332
Figure No. 11: Dynamic of working age population and total population changes in Russia from 1990 to 2025
Figure No. 12: Dynamic of unemployment and migration in Russia from 2000 to 201334
Figure No. 13: Dynamic of internal migration in different Russian Federal Districts from 2008 to 2012
Figure No. 14: The average salary in rubles in different Federal Districts of Russia in 2015
Figure No. 15: Dynamic of registered unemployment in Stavropol Krai in 2014, thousands
Figure No. 16: Unemployment in Russia by age group in November 2015
Figure No. 17: Unemployment dependent on level of education in Russia in 2010 – 2013
Figure No. 18: Industry index in Moscow (orange) and in Russia (blue) from 1992 to 2015 in compare with previous year in %

Figure No.	19: Moscow GRP	and total GDP	of Russia from 2	2000 to 2014		2
Table No.	1: Structure of the	Moscow's GRP	9, %		4	2

1. INTRODUCTION

The thesis was devoted to one of the most important economic problems, the problem of employment and unemployment of the population in Russia.

Currently, unemployment is a huge macroeconomic problem, as influences, perceived throughout the national economy. It characterizes the loss of scarce resources for the production of goods, therefore, the possibility of slowing economic growth. From unemployment depend on the basic micro- and macroeconomic indicators: the level of costs, profit margins; the level of real volume of GDP, inflation, the amount of tax revenue to the budget, the level and quality of life, etc. An important requirement of time becomes a study of unemployment, on the one hand, as a socio-economic system reproduces itself, and on the other - as a member, played development of the economy and affecting the efficiency of enterprises.

Unemployment as an independent scientific problem related to the efficient use of human resources, has not received adequate theoretical and methodological basis and practical solutions. In this regard, I consider that the problem of studying the nature of unemployment, its place in the system of economic relations, the characteristics, causes and forms of economic and socio-economic consequences of this complex phenomenon is relevant in scientific terms. It is necessary to take into account the specificity of unemployment in Russia in regional and sectoral aspects of the causes and characteristics of which are revealed little. This is particularly important given the historical, geopolitical, national originality of Russia, as well as the scale of the reforms.

Lack of experience in the development and implementation of policies to reduce unemployment in the labor market, advanced and efficient of its infrastructure makes the need for labor market institutions in the conceptual and methodological support to help increase the efficiency of the mechanism of regulation of unemployment at the expense of measures to reduce the imbalance between supply and demand for services labor. Along with this, it is necessary to create an effective mechanism of regulation of dismissals at the micro level of the process. Because of this, research the problem of unemployment reflects not only the requirements of modern economic theory, but also business practices.

1.1 Purpose and objectives

The unemployment represents the macroeconomic problem which can affect all of us. The loss of job for most people means the instability of the economic situation and decline in living standards. Moreover, the unemployed gets into a difficult psychological situation which also affects his family.

The financial crisis in Russia, which began in 2014, revealed a number of different and important economic problems in the field of employment. Due to crisis dynamics and scams of official statistic which embellishes the real situation increased the relevance of thesis.

The purpose of this thesis is to make a detailed analysis of Russian unemployment and its development for the last 15 years.

To achieve this purpose it is necessary to deal with the following objectives:

- Study the theory of unemployment, explain what unemployment is;
- Define the reasons for unemployment;
- Analyze the dynamics of unemployment in Russia for the last 15 years;

• Define the reasons, effects of unemployment in Russia and make the appropriate conclusions;

1.2 Methodology

The thesis is divided into two main parts. The first part is theoretical. It deals with explanation of unemployment and related terms. Here it were noticed here the terms like labor market and its division by different criteria, labor demand and supply, the labor market equilibrium, and the factors affected the labor market. There is described types of unemployment including their causes. Also, was payed attention to the unemployment rate and the instruments of the passive policy towards employment - minimum wage, standard of living and unemployment benefits. In conclusion of this part, it would be explained how the statistical information was collected for the second part of my thesis.

The second part of the thesis is analytical. In this part, was payed attention to the development of unemployment in Russia for last 15 years (since 2000). In addition, was described the development of GDP as the main macroeconomic indicator, its changes and impact on unemployment. Next, was formulated a hypothesis that unemployment rate

depends on GDP growth. At the same time, the number of working-age and the level education is very important for unemployment rate, so I also studied the indicators and patterns of these characteristics.

In conclusion, was summarized the analyzed information and identify the factors influencing the unemployment in the Russian Federation. And finally, there is a prediction of unemployment rate in Russia for next years.

2. THEORETICAL PART

2.1 LABOR MARKET

2.1.1 Theoretical definition of the labor market

In the market economy, except goods and services, we also can buy and sold the labor. Labor is a set of all human physical and mental effort used in creation of goods or services and a primary factor of production.

There are common features between the labor market and the goods and services market, but they are different in some ways. The labor is characterized by the fact that the work is done by people, who think and decide independently. These people have their own abilities, skills, features, which can facilitate or prevent their access to the labor market. There are some possibilities for workers which can help them to improve their position on the market. It is professional and territory mobility. In other words, it is a desire to move for a work. Other factors which can influence access to the market are economic and social situation or economic capabilities of firms.

The labor market is the nominal market in which workers find paying work, employers find willing workers, and wage rates are determined.² The second definition is based on statement that the labor market is a place where supply and demand overlaps. People who offer their working skills at this market are called workers. Demand is presented by all subjects of the national economy – firms (local and foreign), households and public sector. Labor is offered by many people who compete with each other. Every employee has his own skills, education, experiences which help him to win this competition. At the same time many firms compete with each other in an effort to get the best employee. The sum of all individual supplies creates market supply on the labor market and equally the sum of all individual demands creates market demand. Labor supply and demand try to reach the balance in labor market. The balanced price is a price when the volume of demand is equal to the volume of supply. The price of labor in economy is a wage.

In this way the labor market is characterized by 3 components: supply of labor; demand for labor; price of labor.

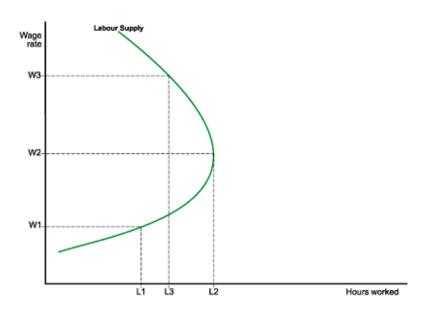
Now I would like briefly describe individual components of the labor market.

2.1.2 The supply for labor

The supply of labor depends on the personal decisions. It means, that every person need to decide whether he wants to work or not. In order to have a willingness to work a person must need a reason to do it. The first reason is wage. The next reason is public acknowledgement, joy and job satisfaction. Otherwise, if person doesn't wish to work he has free time. Free time is a good thing, which also satisfies, but this satisfaction has other form. Marginal utility is a key indicator which can help employee to decide if he wants to work or not. On the one hand, marginal utility is represented by wage; on the other hand, it is represented by the free time satisfaction.

If we want to make a decision on work, we need to know the price of goods and the price of free time. If we decide not to work we will have a lot of free time but we won't have money to buy goods. That is a price for free time. If the wage increases it will increase the price of free time and the substitution effect will work on the labor market. Wage also is an income which allows buying more goods. We have already said that free time is a good too. So if the wage increases it means that person will be able to buy more free time. The supply of labor will drop and there will work income effect. In the graph we can see that both effects are working contradictory and it is important which effect prevails.

Figure No. 1: - Graphical illustration of labor supply curve



Source: Holman, R. 2002. Economy: 3rd actualized edition. Prague. C.H. Beck. s. 714

When the wage increases the labor consumers offer more work because every next hour of work gives more income. High incomes bring more marginal utility from goods and services consumption. But as we can see on the graph the further increase in wage leads to the decrease of number of proposed work. It means that the income effect dominates the substitution effect.

It should be noted that a change of wage doesn't always require a change in the volume of labor demand and supply. There won't be any changes, if the nominal wage changes. There will be change in the volume of labor demand and supply in case the real wage changes. It happens because of the increasing amount of goods, which is possible to buy for the high wage. The most important factors influencing the supply of labor:

- real wage;
- property;
- demographic changes;
- migration;
- interest rate;
- age of the population;
- off-the-job incomes.

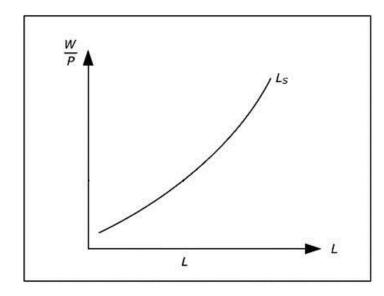
2.1.3 The demand for labor

The demand for labor depends on consumer demand for final goods and services produced by the labor force. Also the demand for labor depends on some restrictions. For example, technological changes influencing labor productivity. Every company assesses the income which it can get after buying the labor. Profit-maximizing companies are in market balance in case they hire the labor force and marginal income from work equals the marginal costs of work.

The most important factors influencing the demand for labor:

- labor price characterized by wage rate;
- technological progress;
- labor productivity;
- demand for final goods and services;
- prices of the other factors of production;
- market expectations.

Figure No. 2: Graphical illustration of labor demand curve



Source: Jirova, H. 1999. Market labor and employment policy. Prague. High School Economy. S. 95. If the real wage increases the demand for labor decreases.

2.1.4 State of equilibrium in labor market

Market equilibrium is a situation when the supply of labor is exactly the same as the demand for labor. Since there is neither surplus nor shortage in the market, price tends to remain stable in this situation. In this situation wage is called the equilibrium wage and amount of work is called the equilibrium amount of work.

Market equilibrium can be reached in two cases.

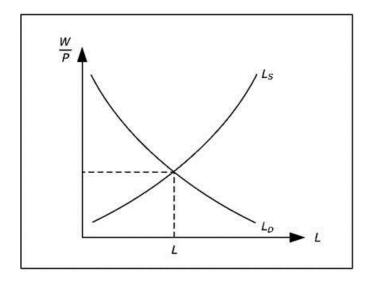
The first case is reached in two ways:

- the workers compete with each other;
- the firm offers lower wage.

The second case is also reached in two ways:

- firms compete with each other;
- the workers ask for higher wage rate.

Figure No. 3: Graphical illustration of labor market equilibrium



Source: University of Colorado Boulder. Labor Markets and unemployment. In: *http://www.colorado.edu/* [online]. Washington DC. Available at http://www.colorado.edu/economics/courses/econ2020/section5/section5-main.html (accessed on 26 January 2016)

The supply curve of labor reflects individual decisions and the increasing desire to work with the increasing of wage rate. The demand curve for labor is from the employer's perspective, as wage rates increase the demand for labor falls as employers seek lower cost substitutes such as capital when practical. When demand equals supply, the equilibrium wage rate is determined.¹⁰

2.1.5 The institutional aspects of the labor market

The market labor is a specific market, where the labor is made by employees. There are next characteristics concerning the labor market. The first is wage rate. The price of labor, known as wage, doesn't change fast. It is very inflexible indicator regulating the labor market to a certain level. For example, when there is big supply of labor there is no significant salary reduction, because the minimal wage rate is fixed by the government. Employer can't reduce the wage rate even there is a candidate who is willing to work for the minimal money. The next important factor is a cost related to the recruitment of new staff and dismissal of the current employees. Also, recruitment can be hampered due to qualification of employee. For example, a company make investments in qualification of current employees in form of training courses and later it is impossible for the company to afford recruitment of new staff because of high training courses price. The next reason of the inflexible wage is an employment contract. And last but not the least reason is the salary specified in the employment contract which is concluded for the long term (at least a year).

2.1.6 The segments of the labor market

There are different types of labor market. The main types are the primary and secondary labor markets.

- The primary labor market includes the most favorable jobs which give employee more money and prestige. These jobs usually can guarantee professional promotion and stability. On this market, employees make effort to improve their professional qualification and are confident of their job.
- The secondary labor market, on the contrary, includes the worst jobs, which are not paid so well. These jobs are not so reliable like jobs from the first market, but the requirements aren't so strict. It is easier to get a job on this market, but there aren't a lot of opportunities.

The next important types of labor market are external and internal markets. I will investigate the external labor market which consists of regional, national and international labor markets. The internal labor market is a market inside one company or firm. Also there are types of market depending on the level of control. They are:

- formal labor market which is controlled by national institutes;
- informal labor market supervised by the government. This market includes black economy and processes related to the illegal business.

2.2 Unemployment

In previous chapter we have theoretically described labor market concept. Now we will focus on the specific problem - unemployment. We will definite the basic terms (economically active/inactive population, unemployment rate, employed/unemployed, registered and real unemployment rate

2.2.1 Basic terms

Population of one country can be divided into two groups:

- economically active population;
- economically inactive population.

Economically active population consists of:

- employed:
 - population over 15 but under 72 years;
 - ✤ all who works and get paid for it;
 - \clubsuit all who has a job but doesn't work at the moment for some reason.¹⁰
- unemployed:
 - population under 15 years;
 - ✤ all who actively look for a job;
 - ✤ all who has already had a job but doesn't work for some reason.

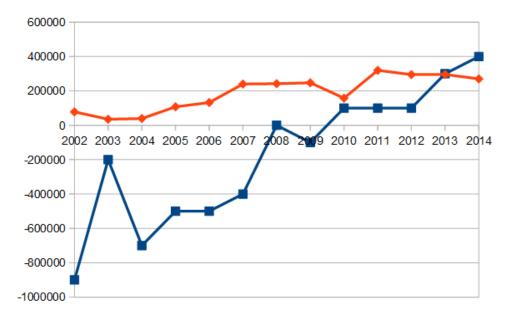
Employed and unemployed population creates work force of country.

Economically inactive population is students, retirees, disabled persons, persons who take care of children and people who don't look for job.

The working population rate is the proportion of the persons 15 years and over who are economically active: all people who supply labor on the production of goods and services during a certain period.

The Russian Federation until 2007 was characterized by low birth rate and huge influx of migrants. The current situation was called as demographic crisis and existed because of low birth rate in previous years and high death rate. Russian government tried to stabilize the situation and it achieved some success, but there was not normal population growth over the past 15 years. Net migration doesn't contribute to it. The population ageing in Russia continues due to medical services, which improve their quality.

Figure No. 4: Graphical illustration of normal population decline (blue) in Russia and immigration growth (orange)



Source: Russian Federal State Statistics Service data, own representation

The next factor influencing the economic activities of the population is retirement age, which is established by government. In Russia it is 60 years for men and 55 for women. Another important factor for economic activity is economic growth.

Unemployment rate is a percentage of the total workforce who is unemployed and looks for well-paid job. Unemployment rate is one of the most closely watched statistics because a rising rate is seen as a sign of weakening economy that may call for cut in interest rate.¹⁷ If we notice \mathbf{u} as unemployment rate, there will be:

$$u = \frac{U}{L+U}$$

where U is a number of the unemployed and L is number of the employed persons.

We can assume that the person is unemployed if he or she is registered by the Labor Exchanges. A lot of people do it because they want to get unemployment benefits from the government and they expect the Labor Exchanges can help them to find a job. In this case we can talk about registered unemployment. But there is another type of unemployment – concealed unemployment. Concealed unemployment includes persons:

- who are long-term unemployed and haven't right to get unemployment benefits anymore;
- who have already found a job, but still don't work;
- who have a part-time job.

That is why the real unemployment is a bigger than registered unemployment.

2.2.2 Classical theory of employment

The basis of classical macroeconomic model was built in XVIII century by famous economists such as A. Smith, D. Ricardo, J. Mill, A. Marshall and others. Their philosophy was based on economic system, which had to work according to rules of free competition and free trade.

Adam Smith (England, 1793-1790) understand unemployment as functions of a capital. If there is capital value growth, there will be high demand for labor and low unemployment. When he was born in England, the impact of mercantilism began to subside, but the economy still was agrarian.

In his book «An Inquiry into the Nature and Causes of the Wealth of Nations» (1776) he noticed that the unemployment depends on the amount of wage bill. This wage bill we have to understand as a capital. The salaries must be paid from the wage bill. When the capital increases, unemployment declines, because big capital needs big amount of workers. According to Smith if unemployment is not on the decrease it is temporary effect.

Smith stress that the employment can be only so big, as big is amount of circulate capital, which is represented by foodstuffs and finished products. These products and a foodstuffs are the things, which are bought by workman.

According to Smith unemployment can be involuntary. And this involuntary unemployment exists only due to capital deficiency, because there is no sufficient capital anywhere. Also

Smith noticed type of unemployment which today we could regard as something middle between structural unemployment and frictional. Smith considered that it is structural because he saw the relationship between supply of labor and demand for labor on the market. This relationship exists due to recession and expansion in some economic branches. Economic expansion needs more workers when economic recession reduces the labor force.

The next economist of classical theory of economy John Mill (England, 1806-1873) thought that capitalists can employ limited quantity of workers. This quantity is also limited by wage bill. If the wage bill declines, unemployment increases. He thought that demand for labor was not created by demand for goods. In his concept demand for labor has an impact on both the salaries and the amount of capital.

2.2.2.1 Keynesian theory of employment

Unemployment and regulation on the labor market were one of the main themes during 1920-1930 years. In the beginning of the 30s of the 20th century the USA and other industrial countries were in the deep economic recession.

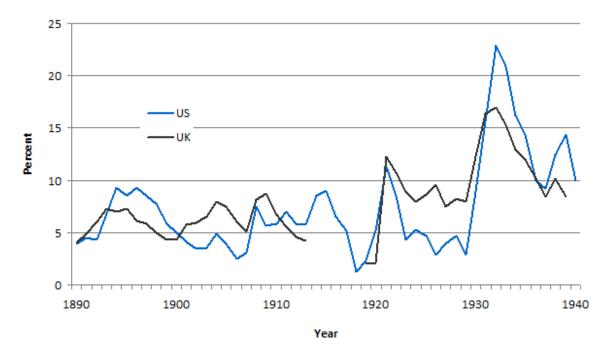


Figure No. 5: Unemployment in the USA and UK in 1890 - 1940

Source: Tymothy J Hatton, http://www.voxeu.org/article/jobs-and-recovery-great-depression

Inelastic prices and salaries related to reducing demand in a gold standard era caused the devaluation of the national currency. Currency devaluation caused decrease in production and rise in unemployment. This decreasing started from collapse on the American stock market in October 1929. In the next 3 years American economy lost a third of its total production and the unemployment reached record 20 per cent. It is well illustrated on the figure 5 (Unemployment in the USA and the UK in 1890-1940). Neoclassical theory that dominated in the economy of that time could not explain why prices and salaries did not adapt elastically to the current situation. In addition there were free production capacities which had to influence unemployment, but it was still very high. So it the main reason of the emergence of classical economic theory which finally was able to explain this paradox.

Neoclassical theory ignored the demand factor and emphasized costs. Classical theory the other way around understood shortage of this position. In the second half of the XIXth century classical economists offered the theory, how to connect demand and costs. Their decision in XXth century was to divide economy to macroeconomics and microeconomics. This dividing soon forced economists to describe all macroeconomic theory once more. New theory was more modern and accurate.

Finally in 1936 Michael Keynes wrote his magnum opus «The General Theory of Employment, Interest and Money». In this book Keynes theoretically describes the functions of the state which should have an impact on demand, reduce unemployment and mitigate the impact of financial crisis. The main idea of this book is consideration that there are important changes in market economy system and now it cannot work like before according to self-regulation mechanisms. So Keynes and his followers were considered, that rescue of economy should be based on public policy. He requires that government must be flexible in its reaction to the economic situation and correct emerging downturns.

After the Second World War the Keynesian theoretical analysis created the basis of the macroeconomic policy in most development countries. Monetary policy, tax regulation and changes in public expenditures; all of it started to use for the economic cycle regulation thanks to Keynes. Keynesian consideration was following: during the economic crisis when there is a shortage of private domestic demand, government needs to increase the public expenditure or reduce taxes. This step has to support domestic demand. On the contrary, during the economic expansion government needs to reduce public expenditures or increase

taxes. Finally in the course of economic cycle public budget will be able to stay balanced; glut from the expansion period will compensate deficit from the crisis period.

2.2.2.2 Practical implementation of the Keynesian theory of employment

However, in practice stabilization monetary policy wasn't working the way Keynes had hoped. It was not a problem to increase public expenditures during the financial crisis, but it was very hard to slow down their growth during the economic expansion. High public expenditures are politically popular tool; otherwise it is not popular when government reduces expenditures. Also it was not popular in a course of economic expansion. As a result of this asymmetry, expenditures in economics of developed countries rose after the Second World War. In the 70s of the 20th century this monetary expansion together with negative oil shocks caused the economic overheating. Economic overheating supported rise in inflation in developed countries. These negative results caused a lot of critical position to the Keynesian theory. As a result it started to lose its popularity.

In the last decade of the 20th century the Keynesian theory became popular again. The reason was a crisis in Asia which affected Japan and South-Eastern countries. This crisis had some same characteristics like crisis in the USA, also called Great Depression. The methods, which were used against this crisis, were typically Keynesian. They were based on the expansive monetary policy.

2.2.2.3 Extensions of the Keynesian model

a) Criticism of Say's law.

Main key point of the Keynesian model was critical position to the Say's law. Say's law or the law of markets states that aggregate production creates an equal quantity of aggregate demand. According to the classical model «the invisible hand of the market» it needed to work without state regulation, but it was not so, because this model could work only in a case, when salary and prices were elastic.

b) Function of savings

Keynesian critic was based of the saving function. According to classical economical model the quantity of savings, unemployment rate, size of investment depend on interest rate. Keynes thought that quantity of savings was dependent from size of disposable incomes. In case of investment investor makes a decision based on profits, which he will get in the future. If people more saving money, do not spend them on consumption or investment, there will be decreasing of the aggregate demand in the economy. Decreasing aggregate demand will cause recession of economy and at the same time high unemployment rate, which is connected to the economical fall.

c) Salary impact

The next point of Keynesian model is market equilibrium on the labor market, which is created by the wage in the classical concept. If the supply of labor on the market increases, demand for labor will adopt to the current situation due to reduction of wages. In his model Keynes noticed that such steps led to the new declining demand, and besides, they reduce the profit of the businessmen. After that they need to dismiss the stuff and finally it leads to the high unemployment rate.

d) The visible hand of the state

Keynes created his own term against Smith's «invisible hand of the market». According to Keynes concept state needs to regulate aggregate demand for the economical development and growth.

2.3 Types and reasons of unemployment

Now I would like to characterize the types and reasons of unemployment. We will explain the basic terms such as:

- natural rate of unemployment;
- concealed unemployment;
- false unemployment;
- part-time job;
- job stagnation.

Frictional unemployment is temporary unemployment arising out of the inevitable time lags in the functioning of labor markets, such as the time taken in moving from one job to another.²⁰

The reasons of frictional unemployment might be different. It can be liquidation of company, employee migration with the purpose of searching well-paid job or situation when new employee (graduate) enter the labor market. R. Holman in his book claims, that frictional unemployment is understood as voluntary unemployment and it includes seasonal unemployment.

In this case we are interested in time which employee spends for job-search. This period depends on some factors:

- wage (high unemployment benefits have a direct impact on wage rate because unemployed can look for a job much longer);
- personal employee requirements;
- bad knowledge about vacancies on the labor market;
- differences between supply structure and demand structure.

Structural unemployment is joblessness caused not by lack of demand, but by changes in demand patterns or obsolescence of technology, and requiring retraining of workers and large investment in new capital equipment.²³ There is regular expansion (electronic) and recession in some sectors (mining activities) of economy. And there are many workplaces in every sector. If there is recession in the sector, retired workers won't be able to retrain fast for the new specialization and they will become unemployed. That is why structural unemployment continues longer than frictional one. Unemployed need time and money for retraining courses.

Not only changes in supply or demand on the market can cause structural unemployment. Another cause of reducing demand for labor might be technological progress.

Structural unemployment is one of the main reasons of the difference in unemployment rates in various regions of country.

Seasonal unemployment occurs when there is limited need for a specific type of work to be performed during a certain time of the year. For instance, amusement parks may experience seasonal unemployment during the winter months because less people will visit the parks during this time.²⁴

Cyclical unemployment is connected to the recession in most developed economies. The main reason of cycle unemployment is cyclical fluctuations in the economy. Economic recession leads to a large output contraction, which in turn contributes to retirement in companies. Broadly speaking, decrease in supply of the market causes a large output contraction and demand decline.

There is correlation between GDP changes and unemployment rate. GDP growth reduces the unemployment rate. Slower GDP growth and its decline increases the unemployment rate. This correlation between an economy's unemployment rate and its GPD is exactly explained by Okun's law which states than «a percentage increase in unemployment causes a 2% fall in GDP».

Now we will explain the term like natural unemployment rate. Level of unemployment at which the inflation rate in an economy stays stable and, if the unemployment falls due to an expanding economy, the inflation rate starts to accelerate. Also called non accelerating inflation rate of unemployment (NAIRU).

Voluntary unemployment is defined as a situation when workers choose not to work despite the fact that they have necessary abilities. The main reason of it is that the market offers a low wage in which the potential employee is not interested and he decides to find a higher paying job. This type of unemployment is characterized by the fact that the amount of unemployed persons is the same as the amount of free workplaces. High unemployment benefits can support this type of unemployment.

Involuntary unemployment means the situation when the potential employees want to work for the low wage. This wage is smaller than the average wage on the market. But companies or firms may be unwilling or unable to cut the wages of employees. The reason is that the real wage cannot be lower than a fixed minimum. The minimum wage causes involuntary unemployment in sector of unqualified workers. The next class of risk includes graduates who have no practice but they want to find a job even with the lower wage than minimum. Too high minimum wage complicates their job-search.

Long-term unemployment is the situation when people have been looking for a job for 12 months and longer. Long-term unemployment is the big problem for economy because it decreases household's revenues and burdens state budget. The next problem is social consequences entailed by long-term unemployment. High unemployment benefits and social aid provoke people not to find job, because they are not so good motivated to do it. If unemployed have children, they will be an example to be followed and instill in them the idea

of supporting the long-term unemployment. They will rely on state and won't work. This factor has a great impact on economy.

False unemployment is a situation when a person is unemployed and doesn't try to look for a job but makes every effort to get unemployment benefits.

Part-time job is one of the methods of fighting massive unemployment. Part-time job is a form of employment where employed person can't use his professional skills and abilities because of shorter hours of work. This kind of job is more productive because there is no downtime.

3. PRACTICAL PART

3.1 Development of unemployment in Russia

In this analytical part of the thesis my aim is analysis of unemployment in Russian federation during last 15 years and description of the factors, which influence the situation on the labor market and features of unemployment rate in different regions of the country. Also there will be described labor force mobility from Russia and to Russian federation from other post soviet countries, seasonal features, age distribution of the unemployment population, education impact.

Importance of this thesis is very high, because in nowadays there is financial crisis un Russia, which highly effects the labor market. Also there still is impact from dissolution of the Soviet Union, market reforms in 90th and last crisis in 2008.

3.2 Indicators and methods for measuring the unemployment rate in Russia

The Federal State Statistical Service of the Russian Federation (Rosstat) uses standards of the International Labor Organization (ILO) for measuring the unemployment rate. Rosstat on its website informs:

«Data on average annual number of employed in economy is compiled by the main job of civil population once a year while building a balance of labor resources based on information of organizations, results of employment population sample surveys, administrative data. Working foreign citizens, who are permanently or temporarily residents in the Russian Federation, are also included in average annual number of employed in economy.

Unemployed registered in the State employment service include persons having no job and wages (labor income), living on the territory of the Russian Federation, registered at a local employment office to search a proper job, seeking for a job and ready to start working.

Unemployed comprise all persons at specified age fit for measuring of population economic activity who during the reference period met the following criteria:

- had no job (profitable occupation);
- were seeking for a jobs, i.e. applied to the State or commercial employment service, used or placed announcements in mass media, Internet, appealed directly to enterprise

administrations (to employers), used personal contacts, etc. or tried to organize their own business;

• were ready to start working during the reference week.

Pupils, students, pensioners and invalids were referred to the category of unemployed, if they didn't have a job, had been seeking for a job and were ready to start working.

Level of unemployment is determined as a ratio of the unemployed of specified age group to the total number of economically active population of the corresponding age group (percent)».³³

3.3 Russia as the legal successor to the Soviet Union

From 1961 to 1991 there was special law in the Soviet Union, which needed to limit amount of people, who did not work specially. There was a system of fines, obligatory community services and other punishments. It was allowed do not work only for housewife, which had a children. The others unemployed had to work.

Soviet Union fall into 15 pieces in 1991. The soviet economy was the second by GDP in the world. It was economy based on state ownership and centralized administrative planning system.

In 90th Russian economy was in heavy economic recession, which was escorted by high inflation, reduction of investment and population incomes, payment arrears crisis and by other negative effects. During the next ten years there were realized economical reforms, which had to adapt Russian economy to the market reality. The main reforms were based on price and international trade liberalization, also there was carried out massive privatization of the state property and business in Russia. Finally the aim was reached and Russian economy changed your system from administrative planning to the market system.

Russian financial policy in this years was managed by International Monetary Fund. The main points of this policy:

- As a tool, which needed to limit inflation, IMF recommended did not pay salary for the workers and pensions for pensioners;
- Ruble's exchange rate was overrated for the inflation limitation;
- State budget deficit was financed due to foreign debts;
- High taxes.

Now we can conclude that this financial policy was not very successful, but it helped to limit inflation, but nevertheless it was not able to launce modernization process and attract investments in Russian economy. As main results of this macroeconomic policy we can specify production decline and significant outflow of capital from Russia. Production decline was accompanied by high unemployment rate in all sectors of economy.

In august 1998 it was reported about state default of Russia and ruble support refusal. Economy received a heavy blow, which was manifested in growing inflation and unemployment, reduction of incomes, production and investment.



Figure No. 6: Unemployment in Russia from 1992 to 2015

Source: Russian Federation Federal State Statistics Service data, own representation

From chart 6 (Unemployment in Russia from 1992 to 2015) we can consider that unemployment curve is growing for all period from 1992 to 1998. Positive changes started only in 1998 immediatly after state default. The biggest unemployment growth was in 1996, when index increased from 9,7% to 11,8% in 1997. There are several reasons of unemployment rate downturn shortly after 1998:

 Oil and gas price growth. This commodities are main components of Russian export. According to US. Energy Administration in 1998 the average nominal crude oil price was \$12,07. In 1999 it increases to \$17,26, in 2000 to \$27,72. According to data of Russian Foreign Bulletin in 1998 share of crude oil in total Russian export was 45.3%, in 1999 it was 44,2%. Growing oil price caused growth of Russian oil export and in 2000 it had already been about 44,8%.;

- The second reason is elimination of salary payment delays by Russian government. This means was used as a tool, which needed to decrease total money supply. The government recognized that economical growth under this condisions was more important, than inflation inhibition;
- The further reason is fundamental change in state budget deficit covering. Russian government understood, that state budget deficit could not be funded from external sources like International Monetary Fund, because in the future it might undermine macroeconomic stability;
- And the last but not least reason is based on a currency course formation changes. The course of ruble became market regulated, because before it was artificially inflated for the inflation restriction.

In compare with other post soviet countries Russian unemployment rate was one of the biggest. In 1996 the bigger unemployment rate was only in Armenia. In nowadays according to statistic servis of Commonwealth of Independent States unemployment rate in Russia is only a little higher than average rate, which is about 5,8% in 2014.

The time period from 2001 to 2008 is characterized by GDP growth in Russia.

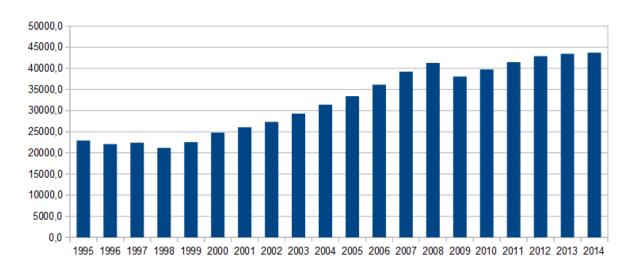


Figure No:7 - Dynamic of GDP in Russia from 1995 to 2015 at 2008 prices

Source: data Russian Federation Federal State Statistics Service data, own representation

The GDP growth in this time period was also called due to increasing crude oil price and gas price, which continued to be the main export commodities. The biggest nominal oil price was reached in 2008 and it equaled \$92,57. The GDP fall in 2008 - 2009 was caused by the world

financial crisis. The economic recession in its turn influenced unemployment rate, which increased from 6,2% in 2008 to 8,3% in 2009.

The further economic growth started in 2009 and it was also caused by the same reasons. The oil price increased from \$59 in 2009 to \$101-102 in 2012. In 2013 was noticed negative dynamic of oil prices, which was reflected in GDP. The GDP growth was slowing down for the next 2 years. In 2013 GDP growth was only 1,3%. During 2014 stagnation was continuing, the GDP increased on 0,6% according to Russian State Statistics Service. The next oil prices decline in 2015 caused economic recession, which equaled 3,7% and was escorted by unemployment growth. According to International Monetary Fund economic recession in Russia will continue in 2016 and in 2017, so we can forecast further unemployment growth, which will be caused by industrial decline.

3.4 Geographical distribution of unemployment

From 90th Russia traditionally has high unemployment in southern regions of the Caucasus. It was caused by wars in Chechnya, Dagestan and Ingushetia, when main part of industry was destroyed. High corruption of local public officers, imperfect laws, which regulate business and continuing military clashes do not allow to develop business and industry for the unemployment reducing. But there are positive trends, because in last years big federal retailers start to invest in republics like Chechnya and Dagestan and open new companies.

The main risks are:

- Terrorist threat;
- High corruption, which is caused by local mentality and supports by corruption in controlling authorities;
- Complicated logistics, because south republics are distant from logistic hubs in Rostov on Don.

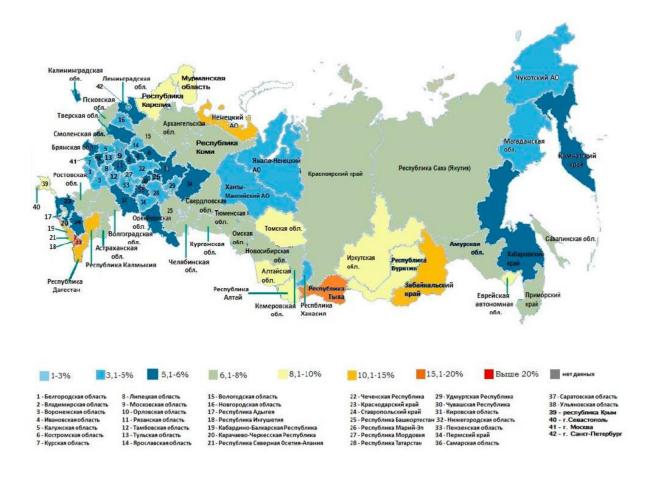


Figure No.8: Geographical distribution of the unemployment in Russia 2015

Source: Russian Federation Federal State Statistics Service data, http://politobzor.net/show-61148-bezrabotica-v-rossii.html

In 2006 according to Russian Federal State Statistics Service official unemployment in Chechnya was 67,7%. Due to government stimulation and fightings stop, in 2015 unemployment rate reduced and was about 21,5%. It is still very high rate in compare with the Russian average unemployment rate which equals 5,2% in 2014 (ROSSTAT, 2015). The worst situation is in Ingushetia, because there are still happening terrorist attacks on the civil population, police and army. All it complicates development of industry and business. In 2005 there was highest unemployment rate according to official statistics. Official unemployment in Republic of Ingushetia was about 63,1%. In 2014 there is still highest unemployment in Ingushetia in compare with the rest of Russia. It was about 29,8%.

The situation is exacerbated by high rate of natural increase in this southern regions.

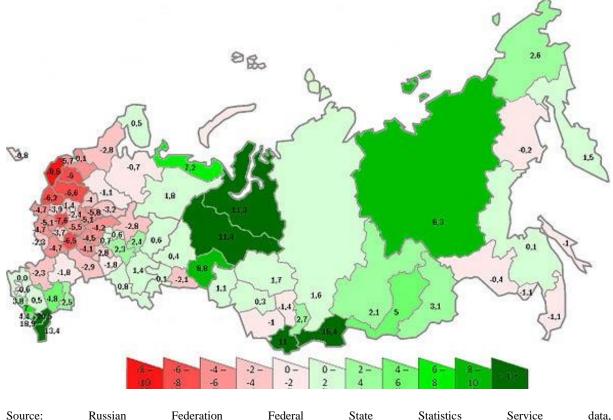
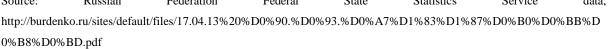


Figure No. 9: Rate of natural increase in Russian regions in 2012



The highest rate of natural increase is exactly in this devastated regions. The biggest rate was in Chechnya, it was about 18,6% in 2015 (ROSSTAT, 2015). In Ingushetia it was 15,04%. The third biggest natural increase is in Siberian republic, which is called Tuva. Natural increase in this region is 13,4%. Region is also characterized as a republic with high unemployment rate. The main reason is outflow of educated population to other regions and deindustrialization processes. Outflow exists due to nacionalism of the local majority, which causes ethnic clashes. In 2014 it was 19,1% according to Russian Federation Federale State Statistics Service.

High unemployment rate in some regions force workers move for the better paid workplace in big cities like Moscow, Saint Petersburg. Also popular destination of migration from North Caucasus are northern regions in West Siberia. It is Tyumen oblast, Khanty - Mansi Autonomus Okrug and Yamalo-Nenets Autonomous Okrug. The salary in this regions is traditionally higher than in the rest of country due to oil producing. The majority of Russian oil was produced in Khanty – Mansi Autonomus Okrug. It is 51% from total amout in 2012 (TASS news).

Tradicionally developed Russian regions in central part of the Russia are characterized by low unemployment and low natural increase of population. Lack of workforce is compenzated from other regions of country and by migration from other post Soviet Countries.

The lowest unemployment rate is traditionally in Moscow and Saint Petersburg, which are according Russia laws considered as regions. In Moscow in 2014 it equals 1,5% and in Saint Petersburg unemployment rate is 1,4%. This rate is not changing for the several years, so we can conclude that regions feel lack of workforce, which is needed to ensure growing indusry.

3.5 Migration in Russia

Russian federation is the second most popular destination for immigrants in Europe after the Germany. According to the Russian Federal Migration Service in 2015 there were 10,9 millions of foreigners in Russia. In 2013 this index was 11,3 millions. Reducing was solved due to financial crisis in 2015. This crisis, which was caused oil prices fall, highly impacted Russian currency – Russian ruble, which was devaluated from 32 rubles for \$1 in 2014 to 72 rubles for \$1 in December 2015.

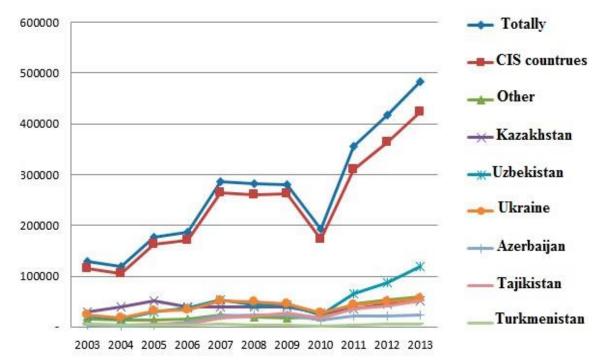


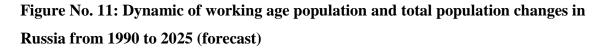
Figure No. 10: Dynamic of migration in Russia from 2003 to 2013

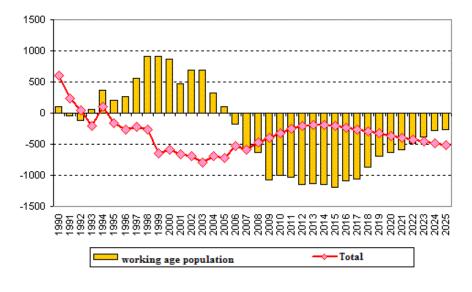
Source: Russian Federation Federal State Statistics Service, own representation

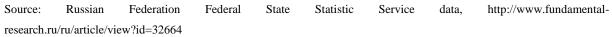
Russian Federal Migration Service claims, that the main suppliers of immigrants in Russia are Ukraine (2,6 millions), Uzbekistan (2,3 millions), Tajikistan (1,1 million) and Azerbaijan. The immigrant growth was caused by fast GDP growth in 2000th in Russia and due to heavy economical situation in other post soviet countries. During 2000th immigration growth compensated natural decline of population. From the figure 9 (dynamic of migration in Russia from 2003 to 2013) we can conclude, that crisis in 2008 had powerful impact for the immigration growth. The biggest impact manifested in 2009 – 2010 years. The reason was reducing of production and weakening of Russian ruble rate.

According to Russian Institute of State management in 2013 7-8% of Russian GDP were created by immigrants work. Negative effect of immigration in Russia is outflow of capital. Migrant workers send their earned money in their countries of origin. In some countries total quantity of money, which were transferred, if so big, that it creates pretty big share of GDP. It relates to Central Asian republics and Republic of Moldova.

Immigrants mainly make unskilled work, so that is why there is not big competition between original population and migrants.







Reducing of working – age population in Russia due to demographical fall also needs more workers for compensation of this deficit. Demographical fall was caused by painful economical situation in 90^{th} years. Also from the graph we can conclude, that there will be

new wave of demographical crisis in next years, which will be caused by new financial crisis due to oil prices decrease

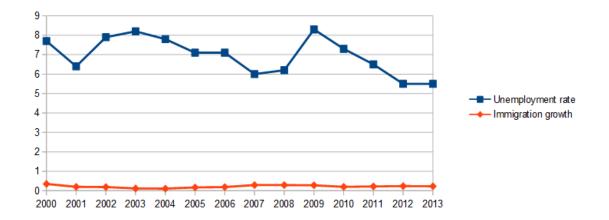


Figure No. 12: Dynamic of unemployment and migration in Russia from 2000 to 2013 in millions

Source: Russian Federation Federal State Statistics Service data, own representation

From the figure No:12 we can see, that the impact of immigration growth for the total quantity of unemployment persons is very small. Immigration growth almost has not impact for the unemployment rate. In addition in is necessary to claim, that majority of immigrants is not educated. They are general workers, who can not compete with local population. From the graph we can also conclude, that immigration growth in Russia is stable.

The internal work migration in Russia is not developed. According to the Sberbank research mobility of workers is twice lower than in US or Canada (Russia: labor market and internal migration, 2013). In 90th it was caused by poverty, because unemployed is not able to afford migration. In 2000th the main reason is convergence of the nearly located regions. From chart No8 we already know, that unemployment in regions almost same with the exceptions of some regions. But finally the migration costs are still high, so unemployed solves to stay at home and try to find job in your own region. There are several ways, how government can improve mobility. First is creation of the national vacation bank, which will help employee to see, where is free vacation in neighboring regions. The second means, which can help to increase work force mobility is a liquidation of social obstacles like registration by place of residence or impossibility to get medical care in other region, which will be paid by insurance. The registration is necessary condition for the legal residence in Russian federation.

Generally internal migration of work force in Russia goes from the east to the west. In 2012 12% of total quantity of internal migrants arrived to the Moscow. In case of Saint Petersburg it is 7% (Russia: labor market and internal migration, 2013).



Figure No. 13: Dynamic of internal migration in different Russian Federal Districts from 2008 to 2012

Source: https://www.sberbank.ru/common/img/uploaded/analytics/2013/migrationFin.pdf

NCFD

VFD

UFD

SibFD

FEFD

-0.2

-0.4

-0.6

CFD

NwFD

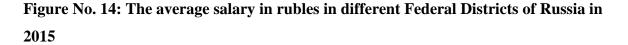
SoFD

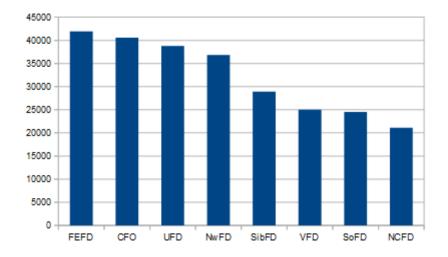
From chart No:13 we become convinced, that the biggest emigration outflow is from Far Eastern Federal District (FEFD) and from Siberian Federal District (SibFD). This trend is not extraordinary, because work force endeavor to migrate to the most developed regions in country, which are located in Central Federal District (CFD), Northwestern Federal District (NwFD) and Southern Federal District. It has already been noticed that Moscow creates more than 20% of Russian GDP. Moscow is located in Central Federal District. It is not good idea to concentrate all industry in several cities, but it has already happened in Russia. The emigration from the eastern federal districts creates lack of qualified workers in this regions. It is one of the biggest problems in case of Far Eastern Federal District.

There are several reasons of migration from the east to the west:

- Climate. There is better climate in the west;
- Infrastructure. Eastern regions are distant from infrastructure objects. The main type
 of transport is railway. Travelling from Far East can continue more than one week.
 Travelling by air transport is very expensive due to extended distance. However there
 are positive trends in this case, because government subsidize air tickets for citizens
 from eastern part of the country;

• Salary. The better developed region supply bigger average salary.





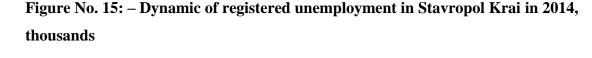
Source: own representation, Russian Federation Federal State Statistic Service

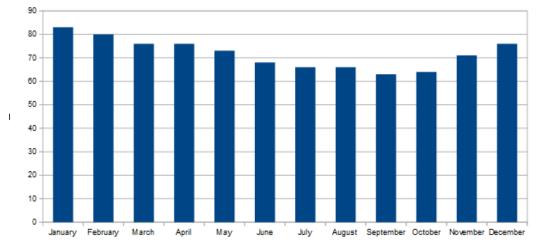
On the chart No. 14 we can see distribution of average salary in Russia. The biggest nominal salary is in the Far Eastern Federal District (FEFD). It equals 41 902 rubles, but average costs in this region are a lot more, because of logistic costs. The other districts, where unemployed can find better paid job, are Central Federal District (CFO), Ural Federal District (UFD) and Northwestern Federal District (NwFd). The salary in this districts is almost equal, is about 38 000 rubles. The average salary in Russia in 2015 according Russia Federal Statistics Service equals 32 214 rubles, so we can conclude, that salary in this federal districts is bigger, than on the average. The lowest salary is in the North Caucasian Federal District. It is about 21 133 rubles. That is why emigration from this region is the second biggest after Far Eastern Federal District. The second reason, as we already know from the previous chapter, is high unemployment rate and big growth of population.

3.6 Seasonal component of unemployment in Russia

Seasonal unemployment in Russia is widened in agriculture, building industry and in some others sectors of national economy, but it has not big effect on the total unemployment like in countries, which are mainly specialized on agriculture or tourism. Mainly it manifests in southern regions of Russia, which are famous by agriculture. I would like to evaluate seasonal component of unemployment in Russia in case of definite southern region like Stavropol Krai, because agricultural sector of economy is one of the biggest in local economy.

In the Stavropol Krai total amount of workers, who are involved in agriculture, is 211 000 (ROSSTAT, 2014). It is 17% from total amount of economic active population. This share is being almost stable for the last 10 years.





Source: Russian Federation Federal State Statistic Service, own representation

On the chart No:15 (Dynamic of unemployment in Stavropol Krai in 2014) we can see, that unemployment rate decreases in summer and spring monthes. Contrary unemployment increases in autumn and winter monthes, when there is not agriculture work, building and tourism slows down. The biggest amount of unemployed was in January (about 80 thousands) and in December (76 thousands). The lowest amount of unemployed is in September and October (63-64 thousands), when it is time to harvest. Average quantity of unemployed in Stavropol region equals 73 000 persons. Total quatity of economic active population is 1,372 million.

3.7 Unemployment by age group

Unemployment in Russia varies by age group. Youth unemployment is widened. Youth people are persons from 15 to 24 years. There are logical reasons, why they can not find work. Sometimes it is caused by education level. The majority of young people in Russia are students, who study in university. Many of them have no experience and practical skills for job. Moreover employer often want to hire person, which has specialization in discipline.

In case of rural population unemployment logically lower, because non – educated worker can be employed in agriculture, where he does not need any special skills.

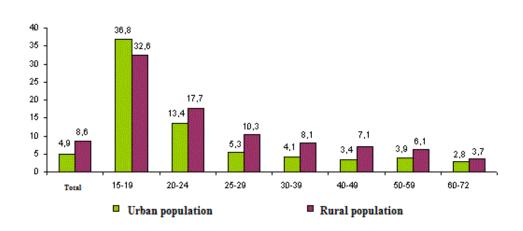


Figure No. 16: Unemployment in Russia by age group in November 2015

Also it is necessary to notice, that job in producing sectors of economy is not very prestige in modern Russia. According to the Russian service HeadHunter, which monitor labor market, hh.index, which shows relationship «CV/job vacancy», in case of «industrial» vacancy equals 2,8. The average hh.index in Russia is 9,9. Job in producing sector of economy is often bad paid and young person solves to get high education. For example in Moscow according to the SuperJobs.ru portal average salary in case of turner equals 48 000 rubles, when total average salary is 59 650 rubles (ROSSTAT, 2015). Moscow it notable, because it is one of the richest regions in Russia, which creates 21,5% of GDP (ROSSTAT, 2014). So there is big skewness towards high education. Middle education is very unpopular in Russian conditions. The skewness towards high education causes high competitive between absolvents and cause new unemployment in the future, when absolvents can not find job in your sector of economy or specialization.

Source: http://www.gks.ru/bgd/free/B04_03/IssWWW.exe/Stg/d06/261.htm

3.8 Unemployment related to the education

Unemployment is highly effected on the level of education. Russian federation is not an exception. Theoretically the better education can help employee to find job faster and this job can be better paid. But in practice it is different. Employer often evaluates profession skills, experience and other factors. Also there is dependence from corruption, because corruption in Russia is almost everywhere. Sometimes candidate can get work place due to familiarity.

Also it is necessary to notice, that integration of university absolvent is very complicated in crisis period. Employer will try to find specialized worker. But there are some exceptions in some sectors. For example in medicine is one of the smallest unemployment rate, because there is lack of doctors in Russia. A lot of absolvent in medicine does not work in your specialization, because of lower salary.

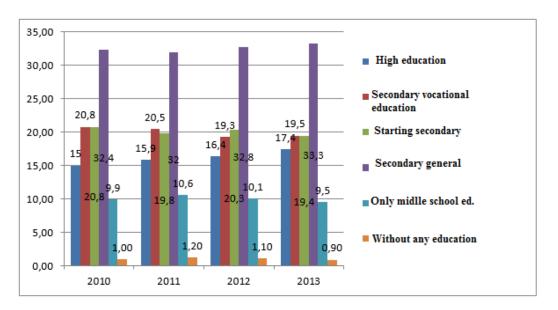


Figure No. 17: Unemployment dependent on education level in Russia in 2010 - 2013

Source: Russian Federation Federal State Statistics Service data, http://www.ereport.ru/articles/mirecon/krisistruda.htm

From the chart No:17 (Unemployment dependent on education level in Russia in 2010 – 2013) we can conclude, that the unemployment rate is stable and all changes are delicate. The biggest unemployment is in case people, who has only secondary general education. Relatively low unemployment has person, who gradutes only middle school. In case of high education level, secondary vocational education unemployment rate is close.

3.9 Comparison of Moscow capital region with the rest of country

Moscow region is one of more developed regions in Russia. The Moscow economy is the biggest in Russia, which creates 21,5% of GDP of Russian economy. At present Moscow is greatest financial center and center of management, which controls majority of Russian economy. Moreover most of Russian companies are registered in Moscow, even they are located in other part of country, but they pay their taxes in Moscow.

Table No.1: Structure of the Moscow's GRP, %

	2013 (Moscow)	2013 (Russia)
GRP	100,0	100,0
which consists of		
Industrial sector of economy:	18,7	22,1
Manufacturing	14,9	15,6
Building	3.8	6,5
Extractive sector:	0	14,6
Agriculture	0	4
Fishing, hunting	0	0,3
Mining	0	10,3
Industrial infrastructure:	13,9	12,1
Production and distribution of electricity, gas and water	3.7	3,4
Transport and communications	10,2	8,7
Market infrastructure:	52,5	34,8
Wholesale and retail trade	31,3	17,3
Operations with real estate	20	12,2
Financial activities	1,2	5,3
Sector of services:	14,9	16,4
Hotels and restaurants	0,9	1
Public administration and defense, social insurance	5,3	6,5
Education	2,5	3
Health care	3,4	4,1
Other community, social and personal services	2,8	1,8

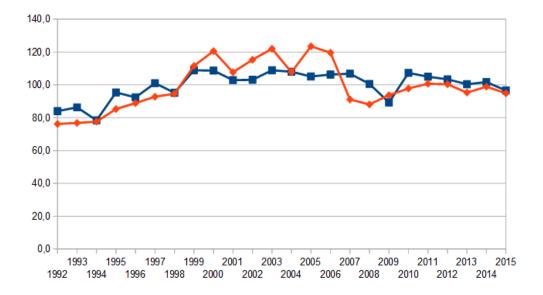
Source: Russian Federation Federal State Statistics Service data, own representation

From the table No.1 I can conclude, that there is complete absence of the extractive sector of economy in Moscow. Russia this economic sector is mainly created by the mining. It has already known, that export of crude oil and gas give more than 50% of incomes of Russian state budget. Due to data from Russian State Statistics Service I was able to count, that

employment in extractive sector of Russian economy was not changing during last 15 years. But the share of this sector increased by 33% from 1997 to 2015. This change is based on crude oil price growing. Also from this data, I noticed, that employment share in the manufacturing sector in Russia decreased by 15% from 1997 to 2015. Almost all of this people founded job in sector of wholesale and retail trade, which practically did not change your structure in GDP. Now I can conclude, that main growth of Russian GDP is reached by mining. The extractive sector created economic growth in Russia in last years and created main part of budget incomes, which helped to persist other economic sectors in same position. Recession in extractive sector causes recession in other sectors and unemployment rate growth. This situation we can see at the moment, when there is increasing unemployment rate in Russia and economic recession, which is caused by oil and gas prices fall.

Moscow economy has not a mining sector, which creates the main part of budget incomes. It is diversified and balanced. This economy is based on trade, operations with real estate and industry. Moscow labor market is more developed in compare with the rest of the country because Moscow is a heart of Russian mechanical engineering, ferrous and nonferrous metallurgy, chemical, light and printing industry. However, there is trend of deindustrialization and industry moving to the Moscow oblast. This trend is supported by Moscow government. For example I could notice displacement of the ZIL factory from Moscow to the different Russian regions like Tatarstan, which was supported by Moscow city – manager. This policy started to give results only in 2007, but calls for industry displacement existed from the 90th years.

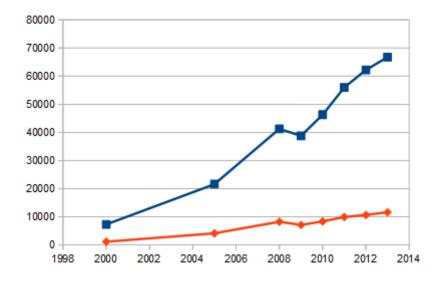
Figure No. 18: Industry growth index in Moscow (orange) and in Russia (blue) from 1992 to 2015 in compare with previous year in %



Source: Russian Federation Federal State Statistics Service data, own representation

From the chart No:18 we can conclude, that industry decline in Moscow in 90th was more stable. Growth of industry, which needs a lot of workers, from 2000 to 2007 was more intensive, than in the rest of the Russia. Recovery from the crisis in 2008 started in Moscow earlier, than averagelly in Russia, but despite this factor industry decreasing continues.

Figure No. 19: Moscow GRP and total GDP of Russia from 2000 to 2014



Source: Russian Federation Federal State Statistics Service data, own representation

Moscow GRP growth is more stable in compare with Russian GDP, which is caused by high oil and gas prices. So there is development of other shares of the economy like industry, which need more workers than oil business.

High average salary attracts workers from other regions of Russia and immigrants from post soviet countries. According to Moscow government in 2016 unemployment is smaller than 1% (0,49%). It very low official unemployment in comparison with the rest of Russia. According to the forecast of the Russian State Statistics Service average unemployment in Russia will be about 5,8%.

The reason for this imbalance is very easy: Moscow economy still growth, when another country is in recession. All money from regions are flocking to Moscow, when it is distributed in favor of the capital. Even high immigration in Moscow can not influence unemployment, which is mainly structural and dependent from workplace change.

Now we can conclude, that unemployment rate in Moscow is very low due to financial, management and services sector growth. In the rest of Russia unemployment is higher, because GDP growth has happened because of oil and gas export, which does not need many workers, but this sector creates a big part of budget incomes and supports other sectors.

4. Conclusion

The research conducted within this work showed, that unemployment in Russia depends on several factors and react for the macroeconomic policy of government. There were financial and economic crises, which powerfully impacted unemployment rate in 1998, 2008 and 2015.

In the course of research were reached the aims of the thesis. After that we can conclude, that the economic recession is the fundamental factor, which influences unemployment nowadays. In economy expansion period (2001 - 2008 and 2011 - 2014) unemployment was much lower than in the crisis time like 90th years or 2008. But economic development in Russia is mainly dependent on gas and oil export, which creates more than 50% of Russian GDP. Any negative event in this sector of economy powerfully influences the other sectors like industry or services sector.

In the next years, we can forecast unemployment growth, which is caused by economic crisis, which is still continuing. The fundamental reason for this crisis has powerful dependence from oil and gas export, which creates more than 50% of budget incomes.

The biggest registered unemployment in Russia is in the North Caucasus republics and the smallest is in Moscow. The unemployment in the North Caucasus is caused by terrorist threat and high fertility of population. Moscow employment structure is different, than in the rest of the country, because the Moscow economy is also different. Economy of the city is more dependent on manufacturing and light sector of the economy. The city cannot export commodities like a country in the general. There is a lack of workforce in the city, which will be eliminated by immigrants from other post-soviet countries and by internal migration inside the country.

The mobility of working population is not high. Internal migration is from the east to the west and caused by economic reasons. The decrease of working age population is impacted by immigration growth. Immigrants from other post-soviet countries will substitute the lack of workforce, but if there won't be positive changes and good economic conditions, Russian economy can suffer from the workforce deficit.

The unemployment rate in Russia for last 15 years was changing from 20% in 90th to 5, 5% in 2015. The main reasons are:

- Financial crisis;
- Market reforms in 90th;

• The effects of the Soviet Union collapse, which complicated economical connections between post-soviet and other countries with Russia;

In course of research I discovered, that there is imbalance towards high education in Russia, which caused useless competitive between absolvents of universities. When industrial sector of Russian economy needs engineers, for the youth is more attractive to work as office worker.

One of the last parts of this research is comparison between Moscow and Russia. Unemployment rate in Moscow is very low. It is about 1%, because Moscow does not feel so painful economic problems, when the rest of the country is in crisis, which is caused by oil and gas prices fall. Of course, financial crisis in Russia will effect on unemployment rate in Moscow, but now this effect is indirect because economy of Moscow is based on other incomes sources, than the rest of the country.

Finally, I can conclude, that Russian federation has challenging future, because of economic recession, which does not stop. One of the way, which can help to decrease unemployment in the future, is economic diversification and reducing of dependence from oil and gas export.

References

- Brdek, M, Jirova, H. 1998. Social policy in EU countries and in the Czech Republic. Prague. CODEX Bohemia. s. 391. ISBN 80-8563-71-X
- Helisek, M. 2002. Macroeconomic: basic course. Melandrium. s. 326. ISBN 80-86175-26-
- Holman, R. 2002. Economy: 3rd actualized edition. Prague. C.H. Beck. s. 714. ISBN 80-7179-681-6
- Jirova, H. 1999. Market labor and employment policy. Prague. High School Economy. S. 95. ISBN 80-7079-635-9
- Mares, P. 1998. Unemployment as a social problem. Prague. SLON. S. 172. ISBN 80-901424-9-4
- Novacek, V., Svarcova, J. 2001. Foundation of Economy. Zlin. Tomas Bata University in Zlin. ISBN 80-7318-003-0
- Russian Federal State Statistics Service. Methodological guidelines. In: http://www.gks.ru/ [online]. Moscow. Available at http://www.gks.ru/bgd/regl/b15_12/IssWWW.exe/stg/d01/06-00.htm (accessed on 26 January 2016)
- University of Colorado Boulder. Labor Markets and unemployment. In: http://www.colorado.edu/ [online]. Washington DC. Available at http://www.colorado.edu/economics/courses/econ2020/section5/section5-main.html (accessed on 26 January 2016)
- Varian, Hal R. (1992). *Microeconomic Analysis* (Third ed.). New York: Norton. ISBN 0-393-95735-7.
- WebFinance, inc. Labor. In: *Business dictionary.com* [online]. Washington DC. Available at http://www.businessdictionary.com/definition/labor.html (accessed on 26 January 2016)
- WebFinance, inc. Labor market. In: *Business dictionary.com* [online]. Washington DC. Available at http://www.businessdictionary.com/definition/labor-market.htmll (accessed on 26 January 2016)
- WebFinance, inc. Market equilibrium. In: *Business dictionary.com* [online]. Washington DC. Available at http://www.businessdictionary.com/definition/market-equilibrium.html (accessed on 26 January 2016)
- WebFinance, inc. Unemployment rate. In: *Business dictionary.com* [online]. Washington DC. Available at http://www.businessdictionary.com/definition/unemployment-rate.html (accessed on 26 January 2016)
- WebFinance, inc. Frictional unemployment. In: *Business dictionary.com* [online]. Washington DC. Available at http://www.businessdictionary.com/definition/frictional-unemployment.html (accessed on 26 January 2016)
- WebFinance, inc. Structural unemployment. In: *Business dictionary.com* [online]. Washington DC. Available at http://www.businessdictionary.com/definition/structural-unemployment.html (accessed on 26 January 2016)
- WebFinance, inc. Seasonal unemployment. In: *Business dictionary.com* [online]. Washington DC. Available at http://www.businessdictionary.com/definition/seasonal-unemployment.html (accessed on 26 January 2016)
- WebFinance, inc. Natural unemployment rate. In: *Business dictionary.com* [online]. Washington DC. Available at http://www.businessdictionary.com/definition/natural-rate-of-unemployment.html (accessed on 26 January 2016)